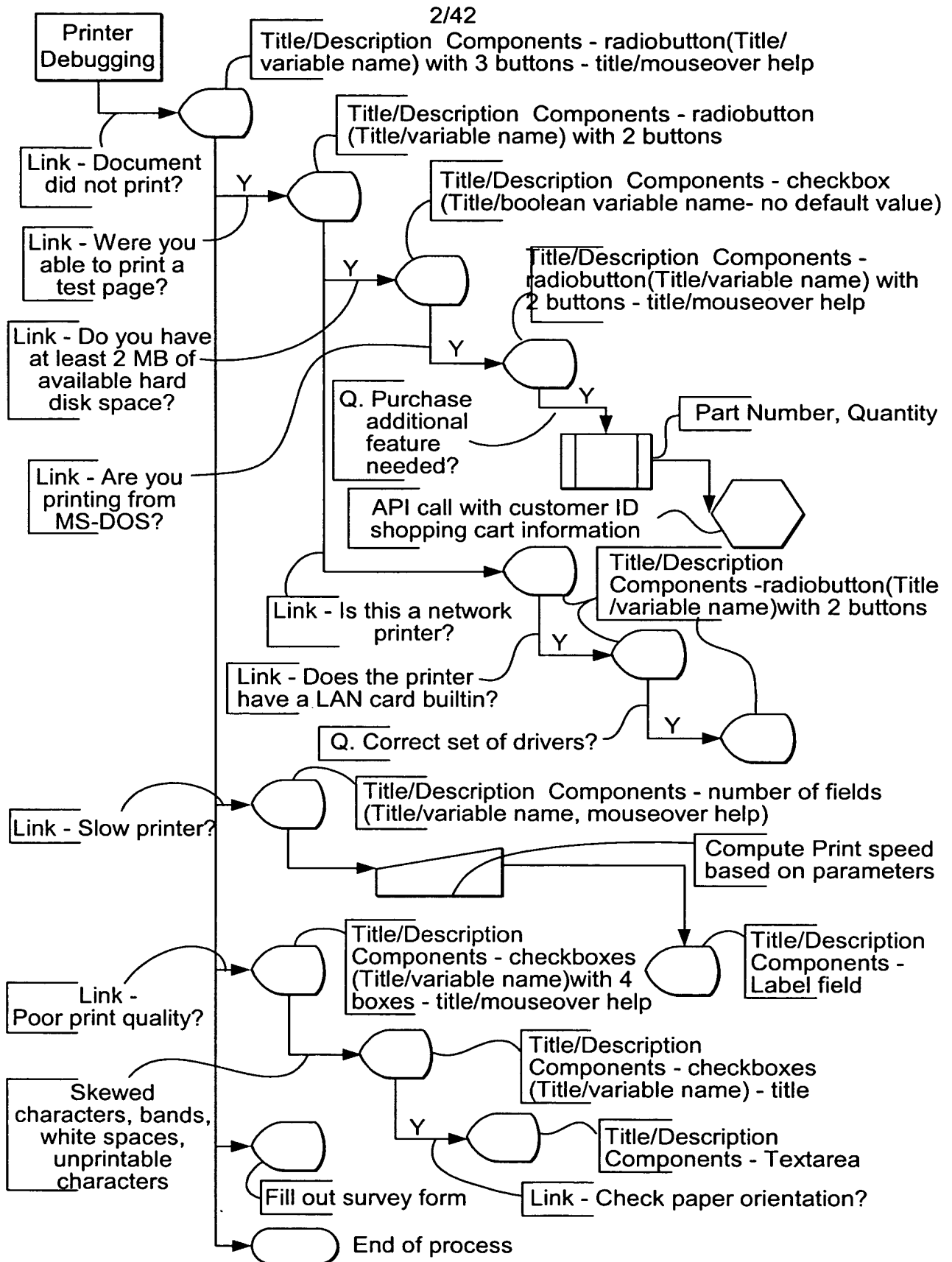


Sample Business Process

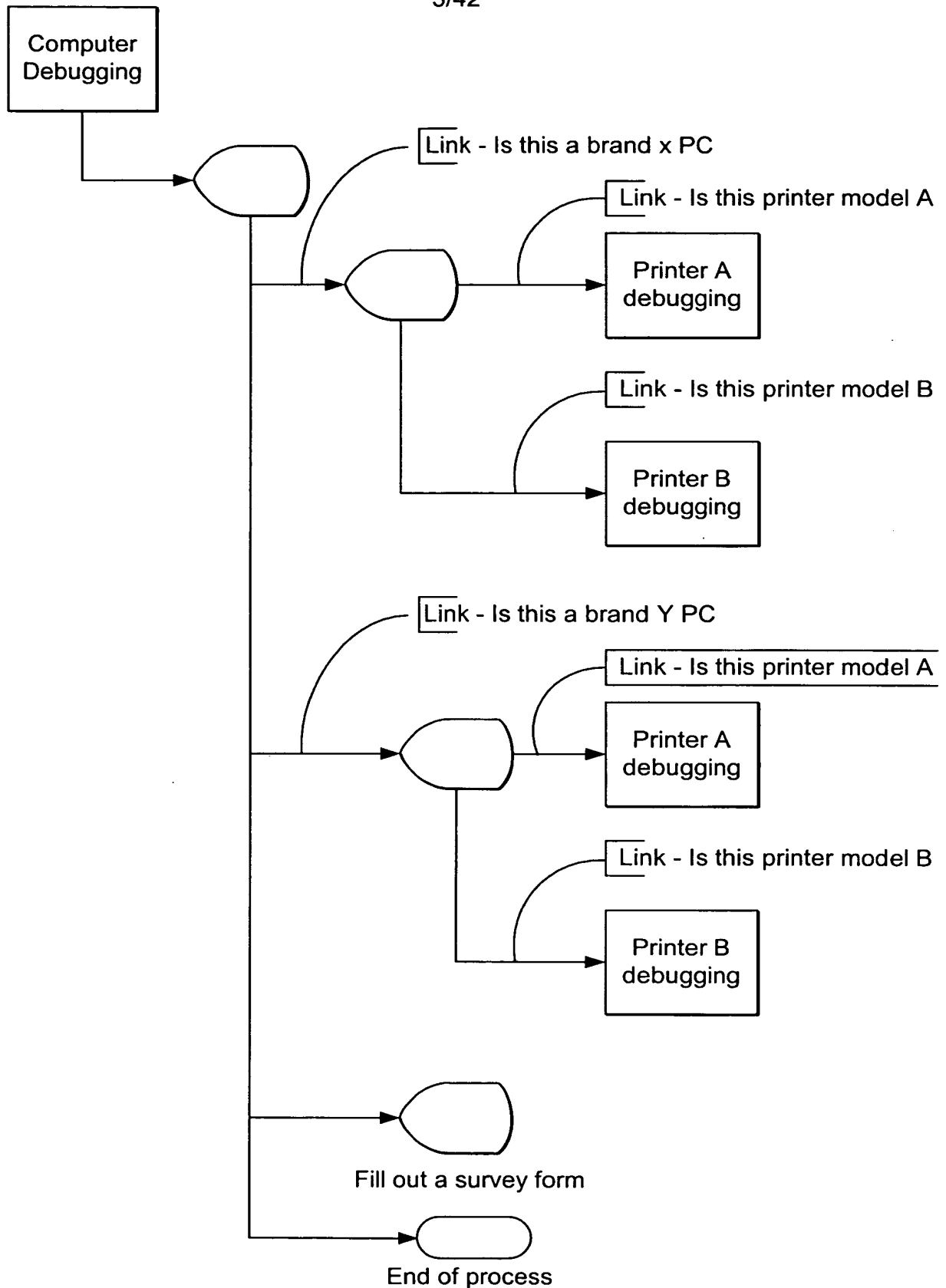
FIG. 1

BEST AVAILABLE COPY



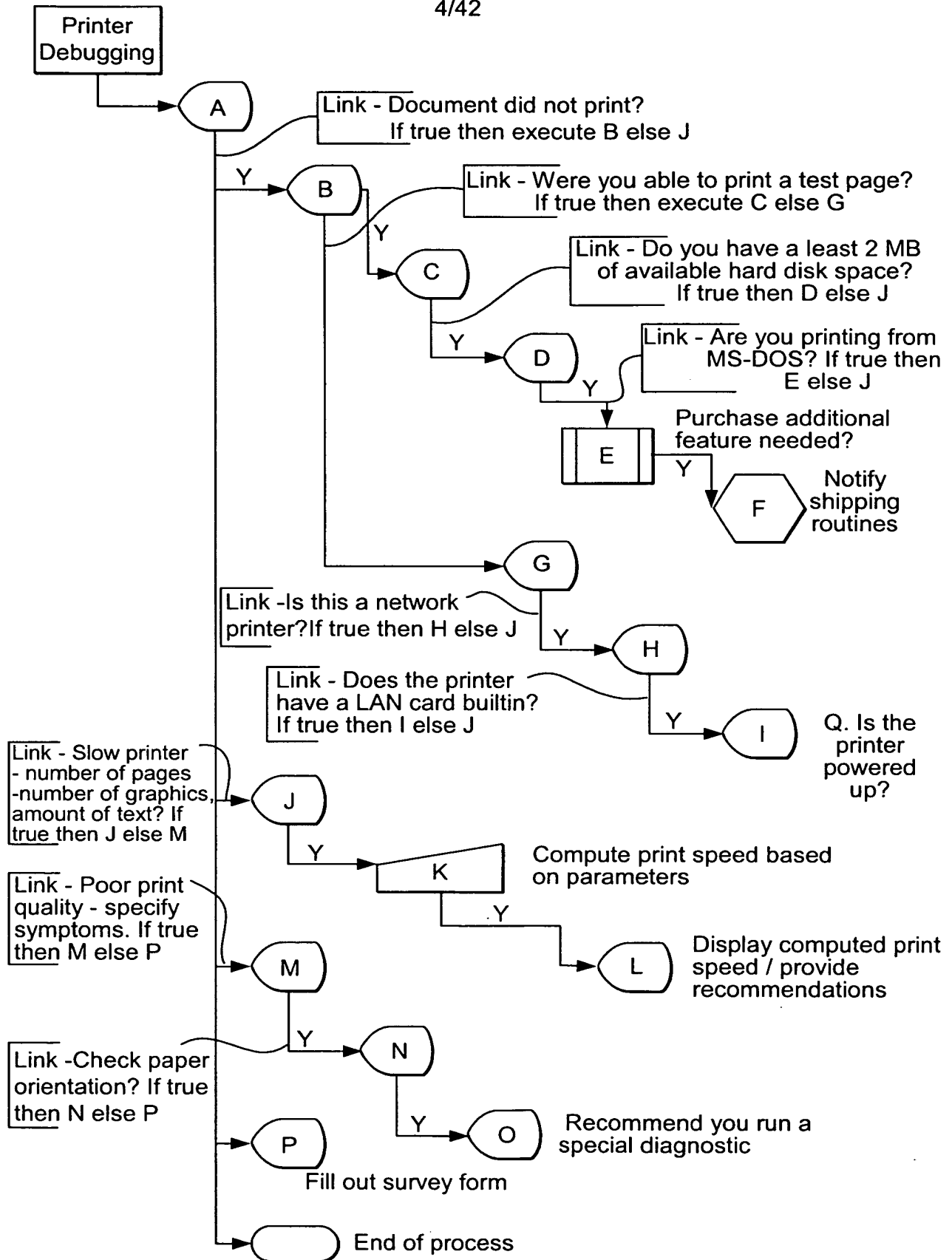
Node Example Details - Links and User Interface Specifications

FIG. 2



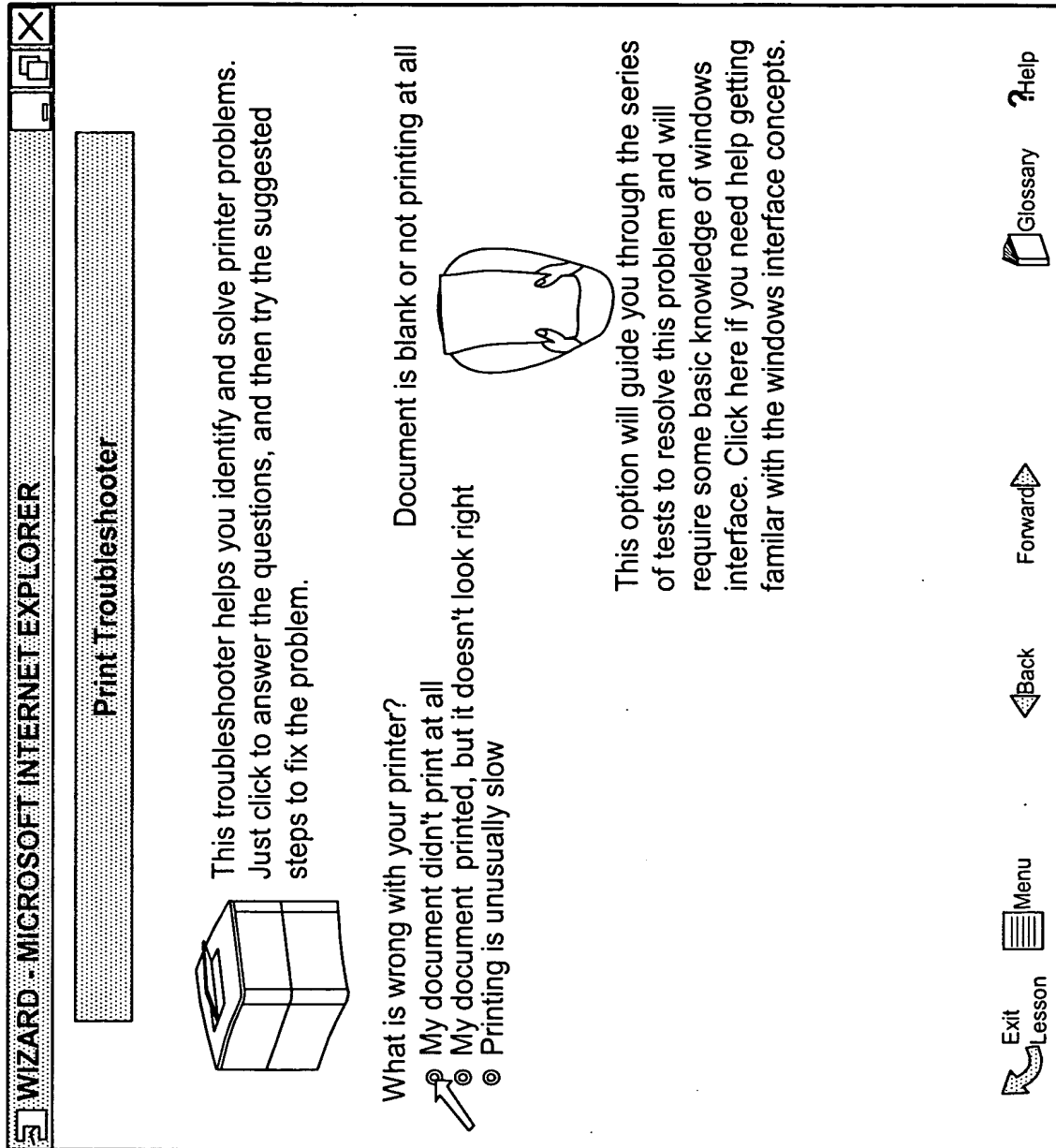
Reusable Process Definitions

FIG. 3

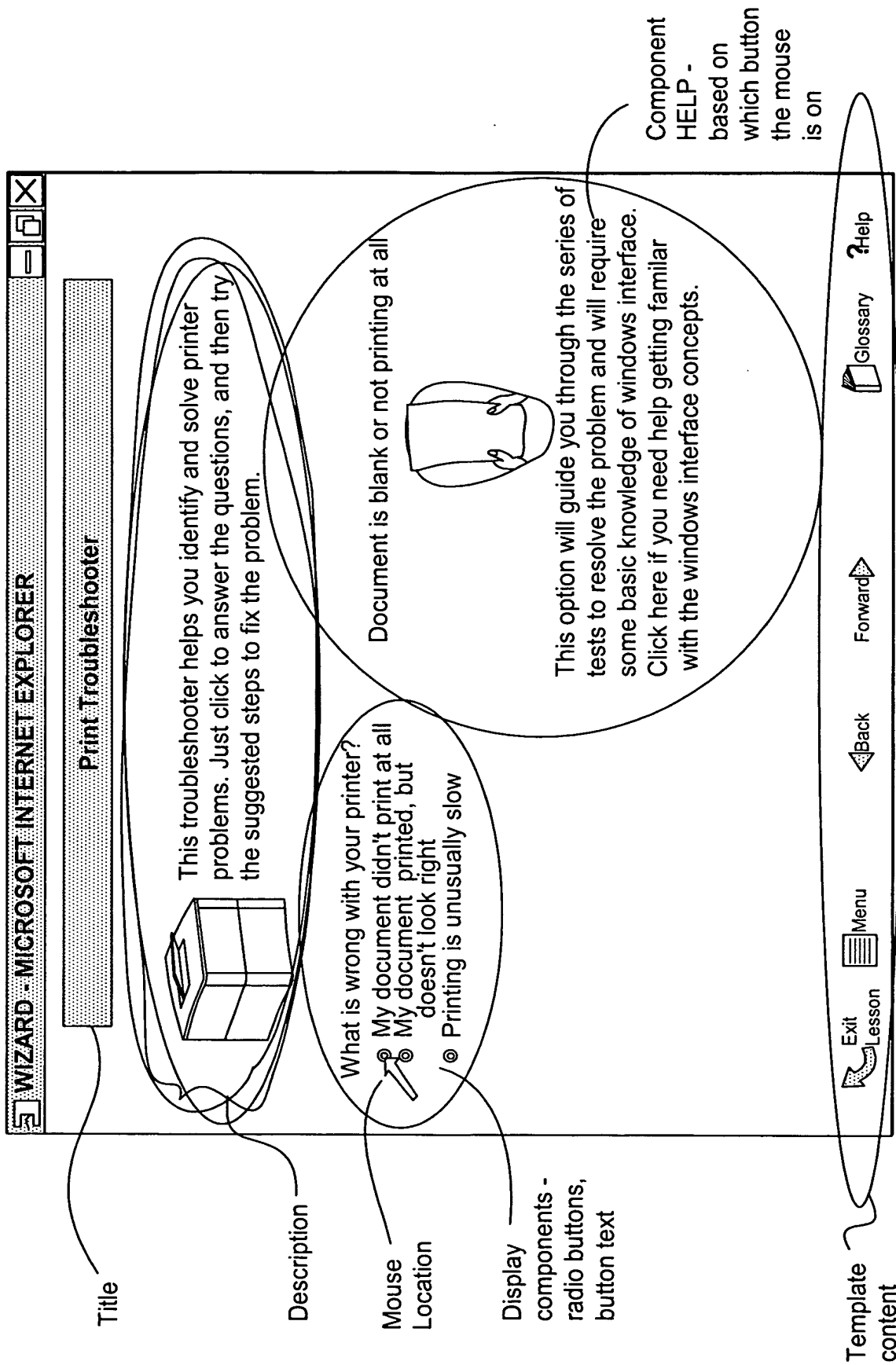


Node Conditional Logic

FIG. 4



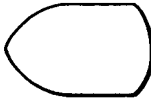
Sample Application Screen Shots
FIG. 5



Display Sections



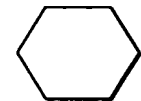
The process node represents a complete process and contains global variables for the process



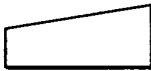
The display node represents the logic to display titles, screen descriptions and display objects such as radio buttons, pull-down menus, checkboxes etc. The individual display objects may have a wide range of animated behaviors and may accept input that is stored in global variables.



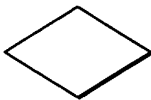
The purchase node represents the placing of a certain number of specific items for purchase on a shopping cart paradigm for later checkout. e.g., place a 4X CD-ROM, associated documentation and a software driver in the shopping cart



The interface node represents the interaction with external applications using a pre-defined interface known as an API (application programming interface) e.g., issue a call to a relational database requesting records that match a certain criteria



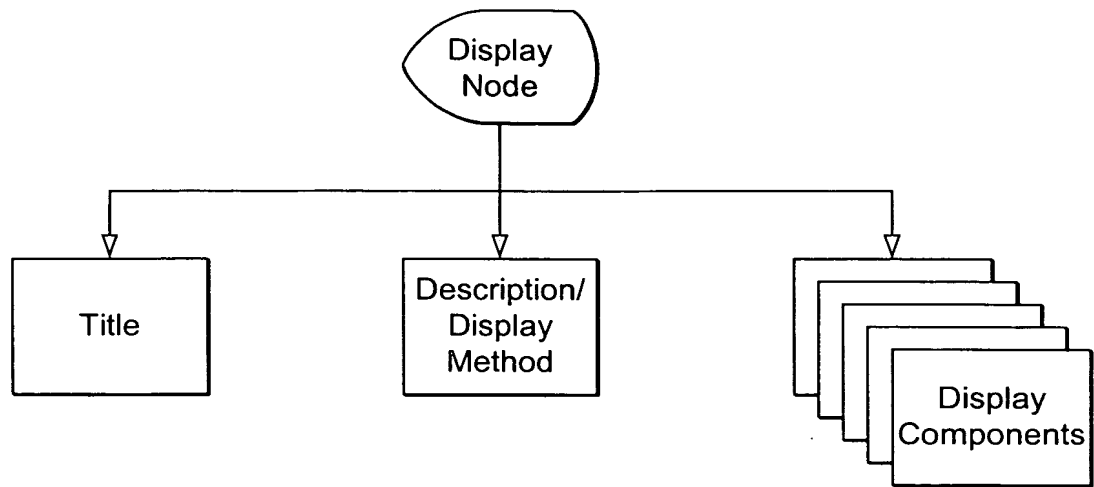
The computation node represents the computation of a variable using a formula e.g., $A = B^3 + 4 \cdot D^{**2} / 5.4$



Links represent the conditions under which a subsequent node will be executed e.g., $A < 5$ AND $B > C$

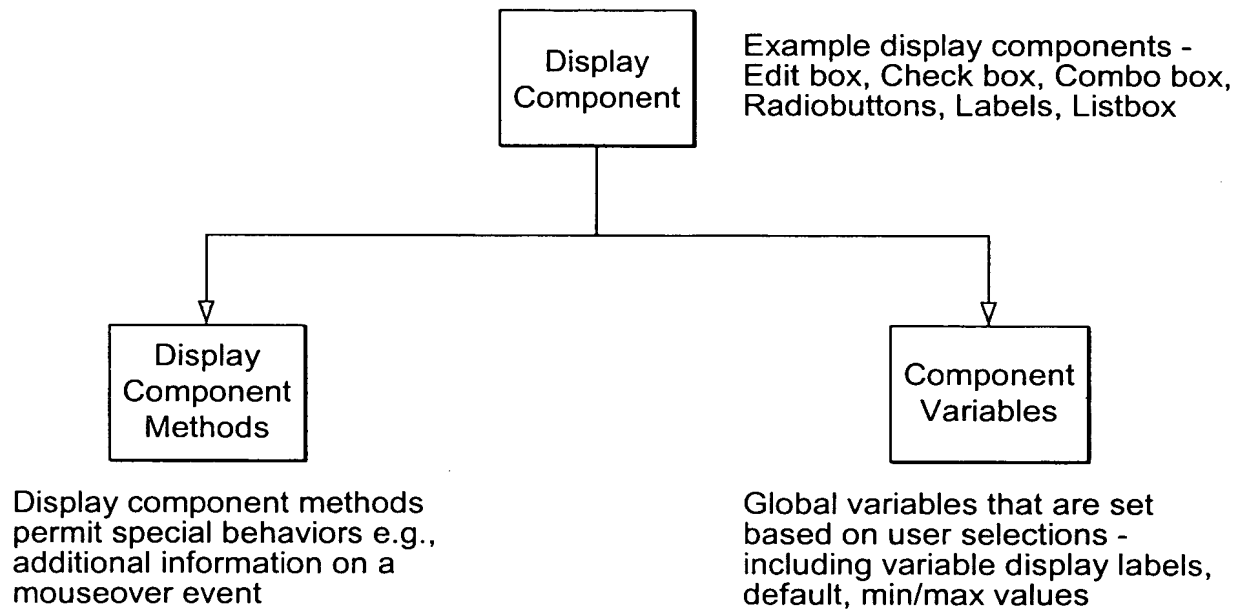
Node Types and Links

FIG. 7



Display Node

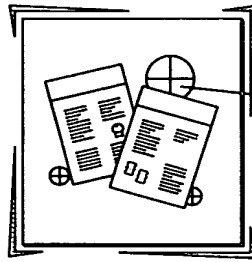
FIG. 8



Display Components

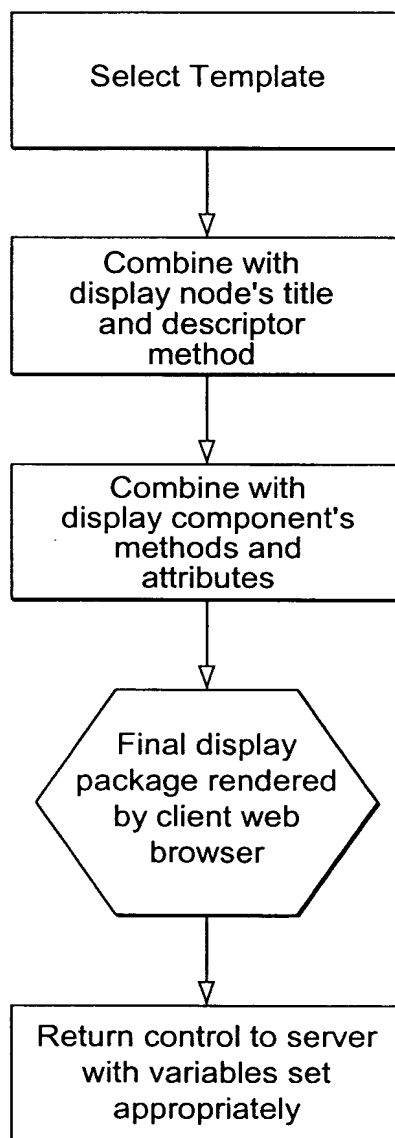
FIG. 9

Templates provide a means to define an overall look & feel for a specific screen display



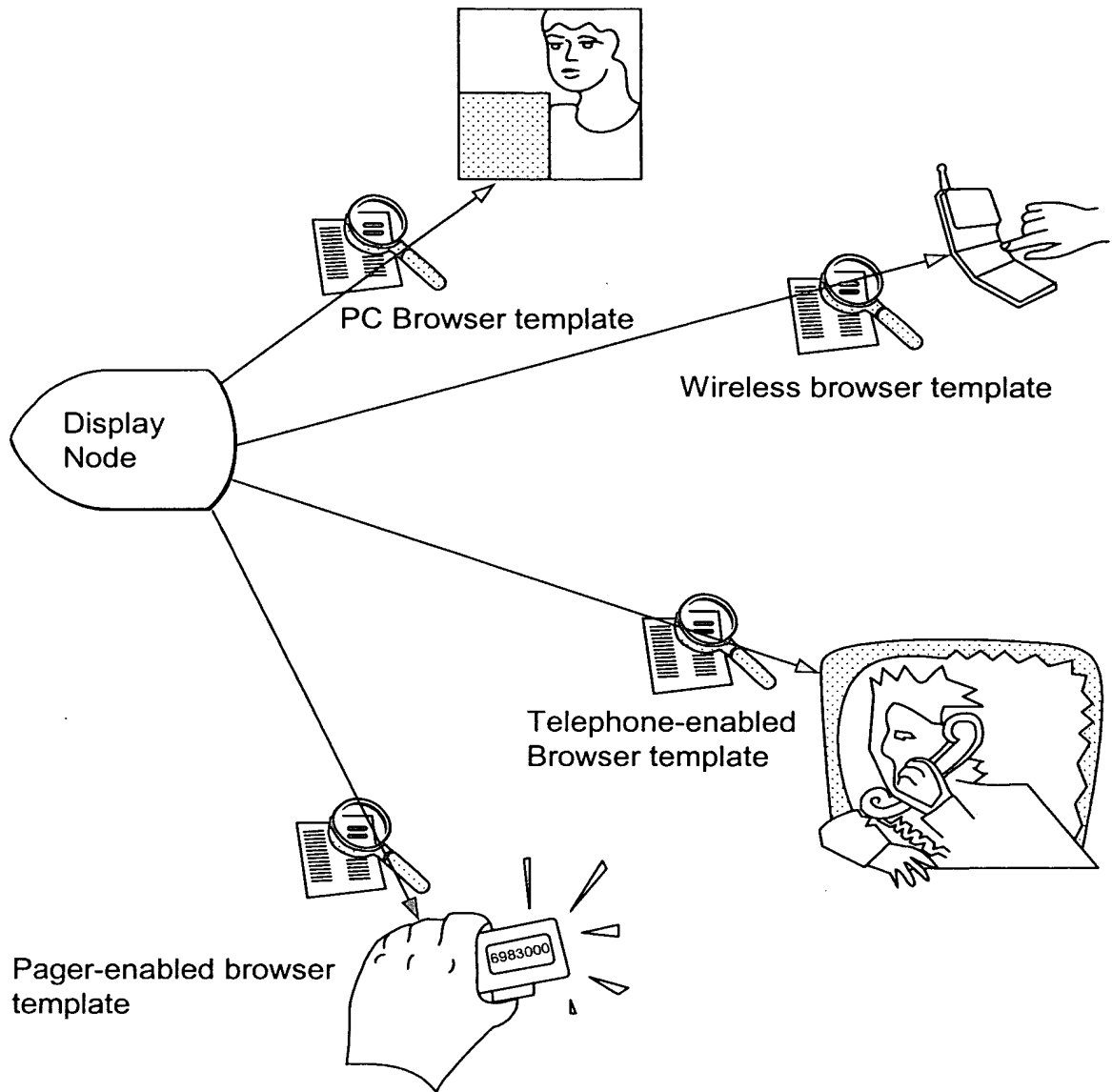
Templates may be associated with a website (lowest priority) or a specific process or with a specific display node (highest priority)

The highest priority template is the one selected



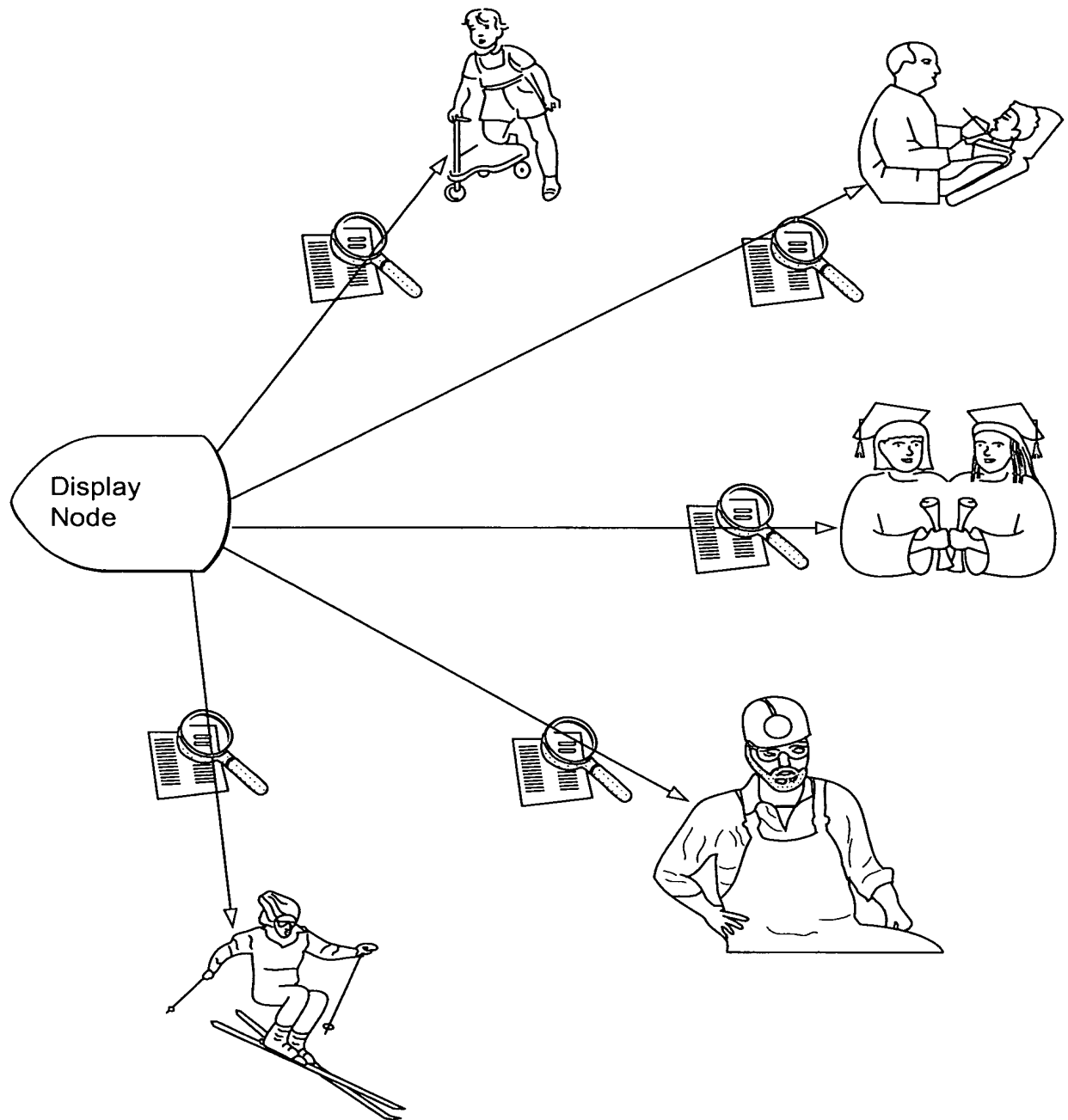
Dynamic display creation process

FIG. 10



Template-enabled browser device independence

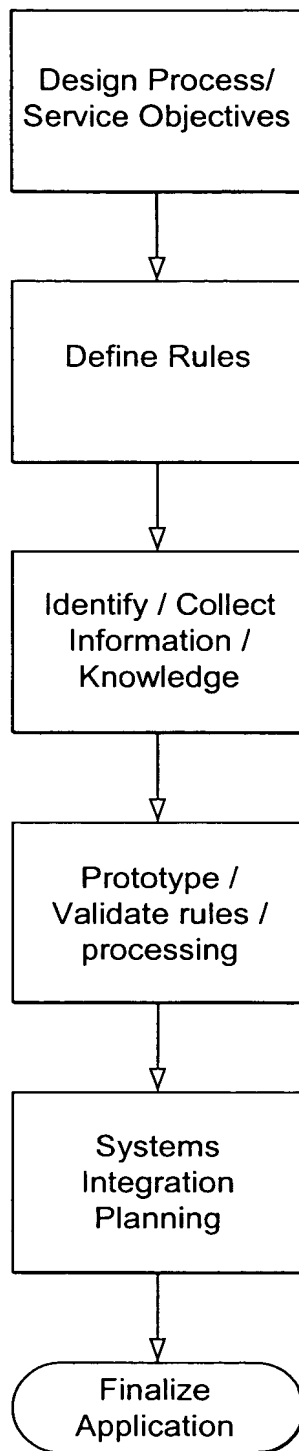
FIG. 11



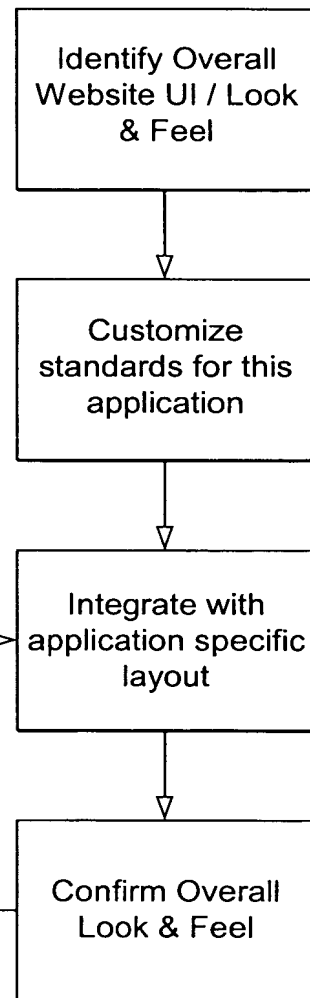
Template-enabled personalization of browser user interface

FIG. 12

Business Process Design



Website Design

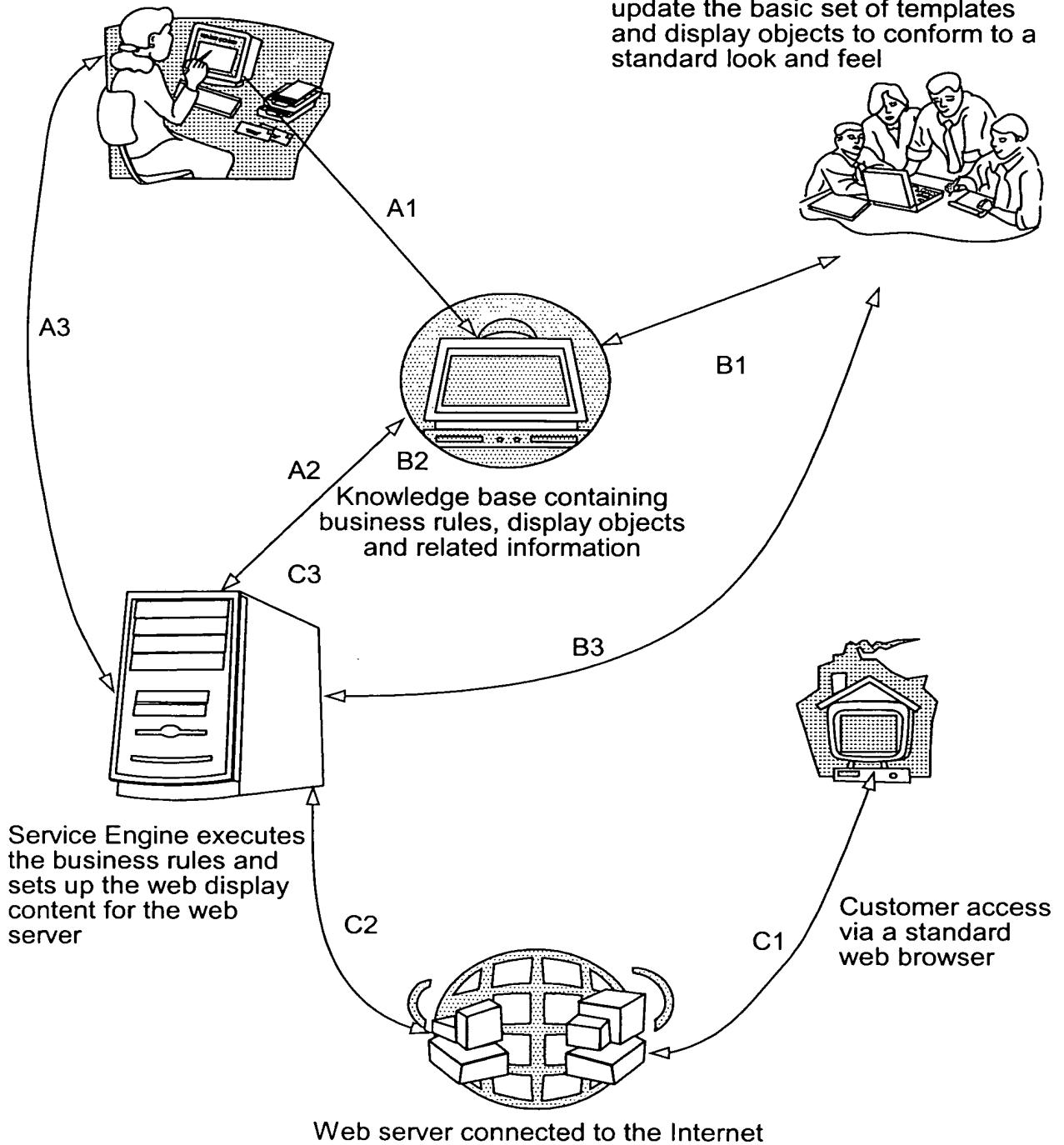


Overlapped Business Process Design and Website Design Methodology

FIG. 13

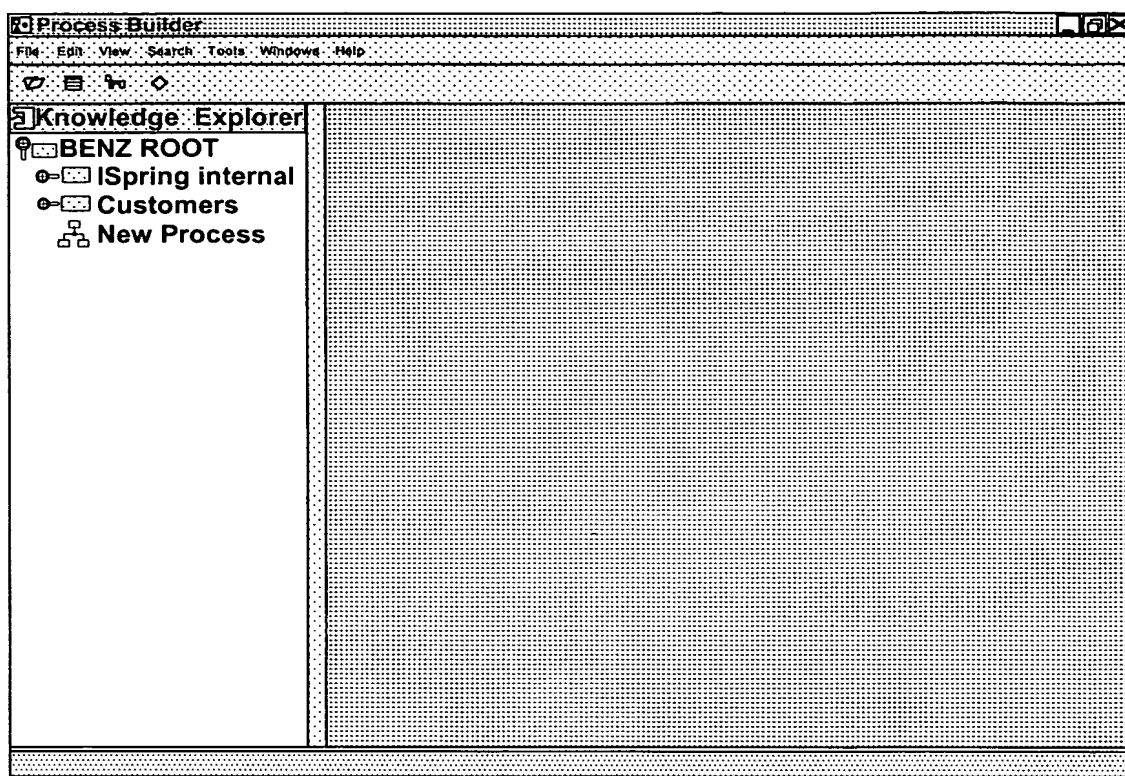
Analyst uses a process design tool to layout the target business process and corresponding rules based on documentation and best practices. She uses a set of predefined templates and display objects to set up a basic look and feel.

Company user interface designers update the basic set of templates and display objects to conform to a standard look and feel



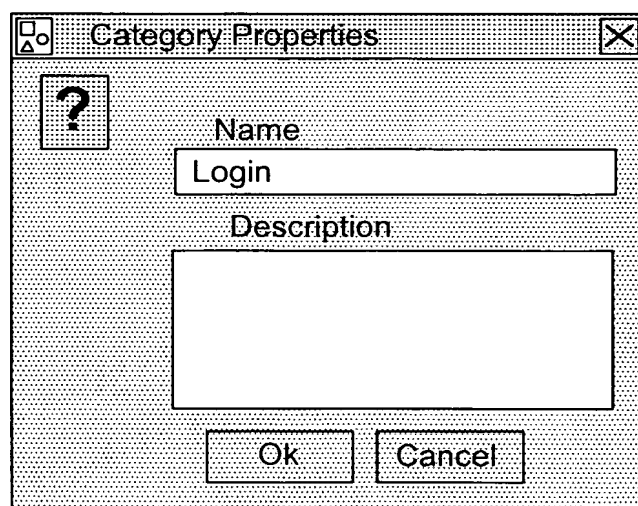
Information and Control Flow

FIG. 14



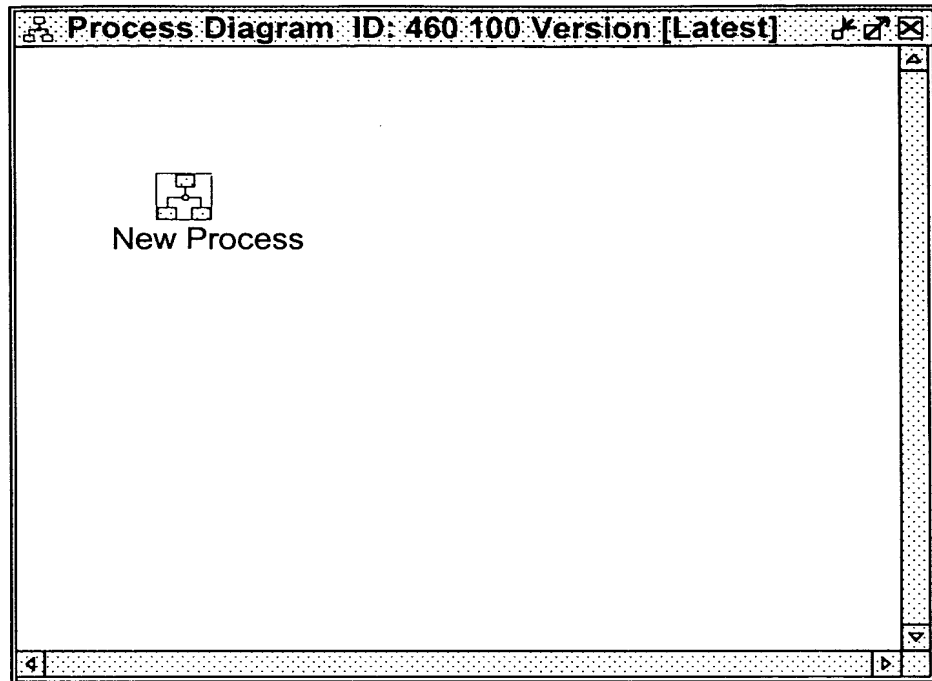
Opening Process Builder Screen

FIG. 15

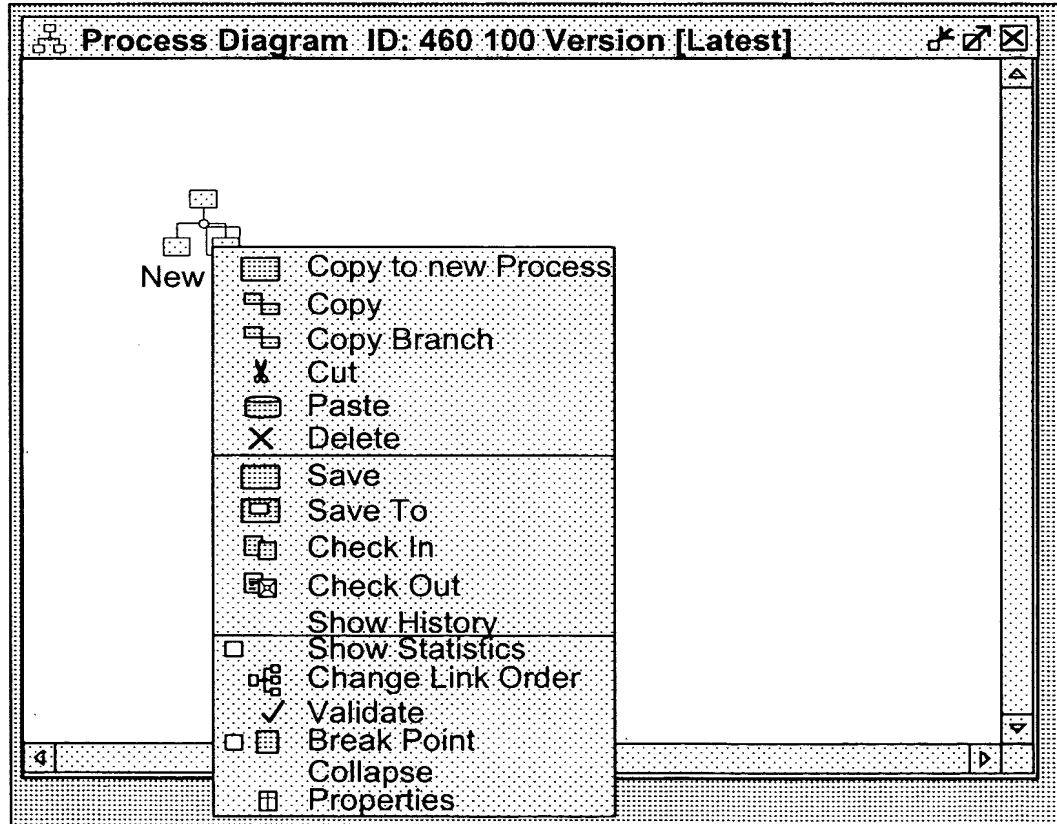


Category Properties

FIG. 16



New Process Node
FIG. 17



Checking Out A Process
FIG. 18

Process Node Properties - 460100

General

Schedules

Title:

New Process

Name:

New Process

Description:

Status:

New...

Delete...

Permissions...

| | Name | Description | Type | Value |
|--------|------|-------------|------|-------|
| ✓ Root | | | | |

✓Ok

XCancel

Process Node Properties

FIG. 19

Process Node Properties - 460100

GeneralSchedules

Title:

Login Process

Name:

Login Process

Description:

Status:

New...

Delete...

Permissions...

Root

username

password

Type

String

Boolean

Long

Object

String

Time

TimeStamp

User Type

XML

XML Element

Value

false

Ok

Cancel

List of Variable Types

FIG. 20

Process Node Properties - 460100

General Schedules

Title: Login Process

Name: Login Process

Description:

Status:

New... Delete... Permissions...

| Name | Description | Type | Value |
|----------|-------------|--------|-------|
| username | | String | |
| password | | String | |

Root

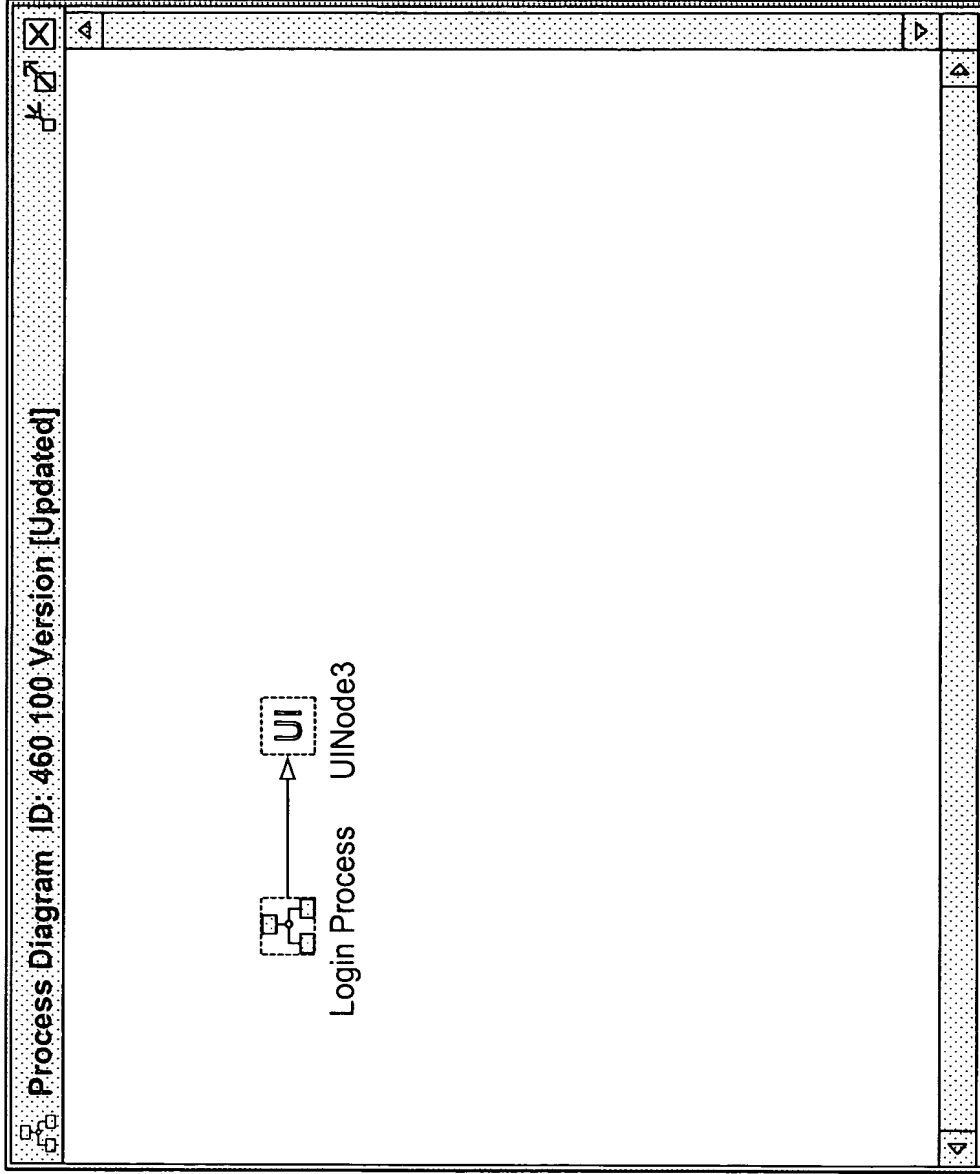
username

password

OK Cancel

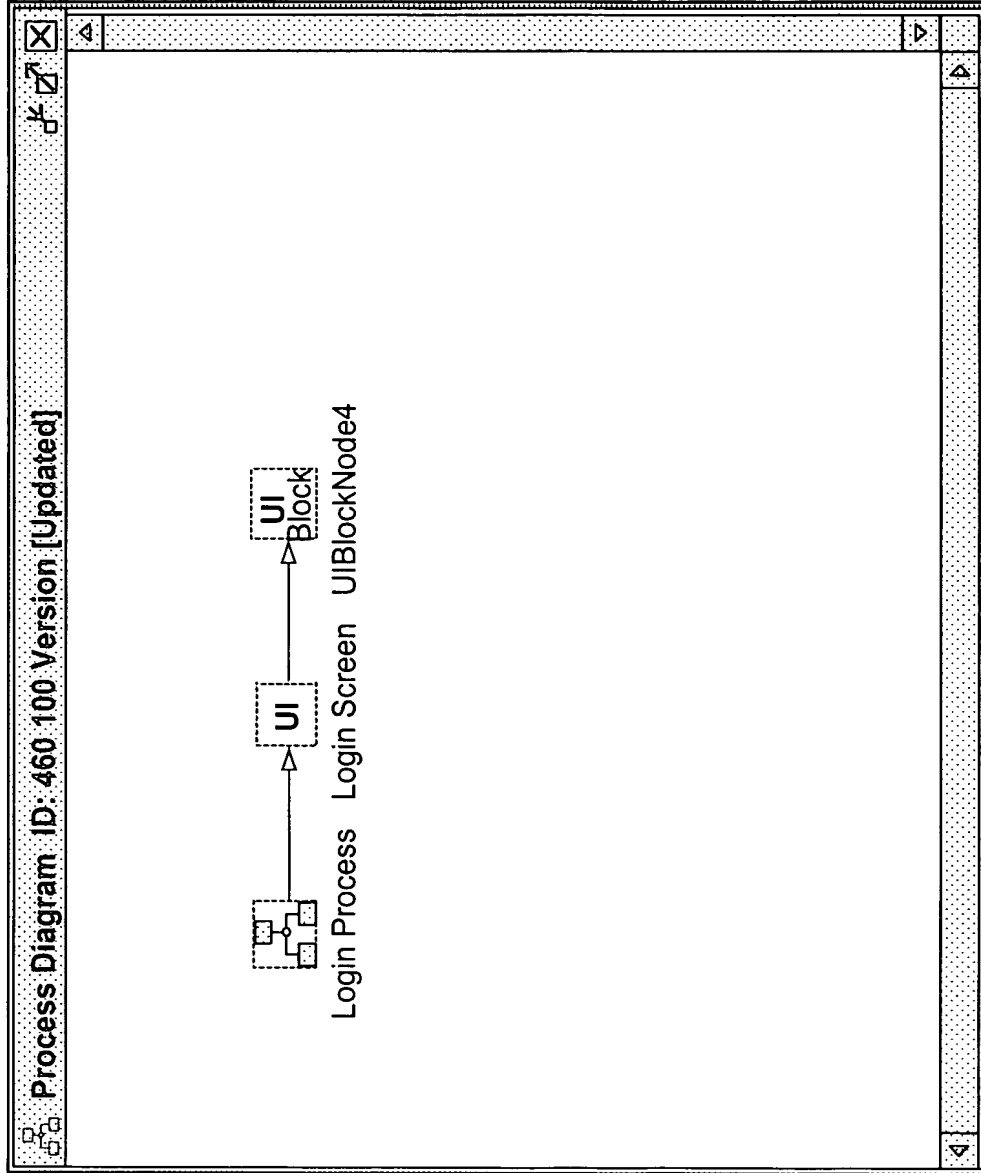
Naming Variables

FIG. 21



User Interface Node

FIG. 22



User Interface Block Node


FIG. 23

UIBlock Node Properties - 460114

General Properties

Title: Login Controls

Name: Login Controls


Description: 

Component Chooser

| Selected Components | Available Components |
|---------------------|----------------------|
| String | Date |
| | DateTime |
| | DBList |
| | List |
| | Number |
| | String |

General Properties Events

Title:

Description: 

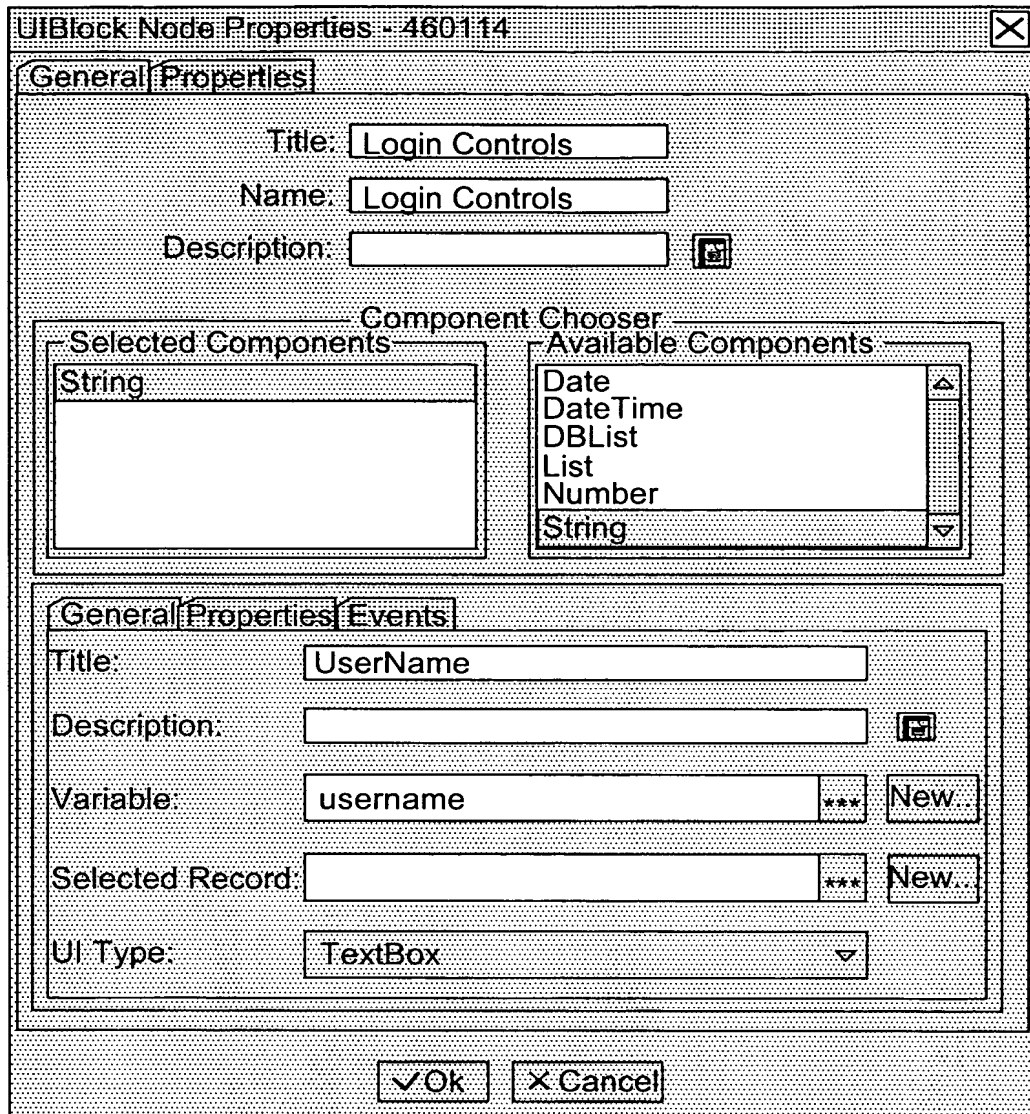
Variable: *** New...

Selected Record: *** New...

UI Type:

User Interface Block Node Properties

FIG. 24




UIBlock Node Properties - 460114

General Properties

Title: Login Controls

Name: Login Controls

Description: 

Component Chooser

Selected Components


String

Available Components

Date
DateTime
DBList
List
Number
String

General Properties Events

Title: Username

Description: 

Variable: username *** New...

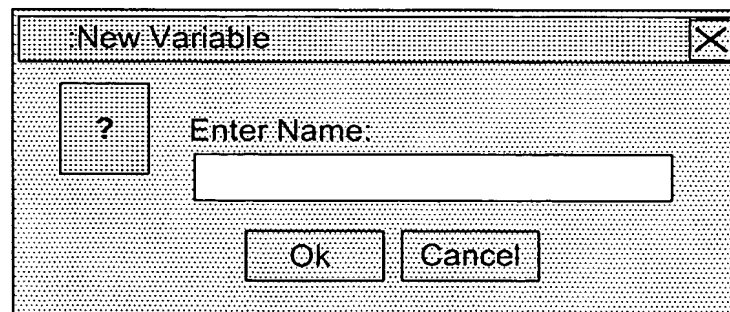
Selected Record: *** New...

UI Type: TextBox

✓ Ok X Cancel

Component Definition Box, General Tab

FIG. 25



New Variable

? Enter Name:

Ok Cancel

Variable Definition Box, User Interface Block Node


FIG. 26

UIBlock Node Properties - 460114

General **Properties**

Title:

Name:

Description: 

Component Chooser

Selected Components

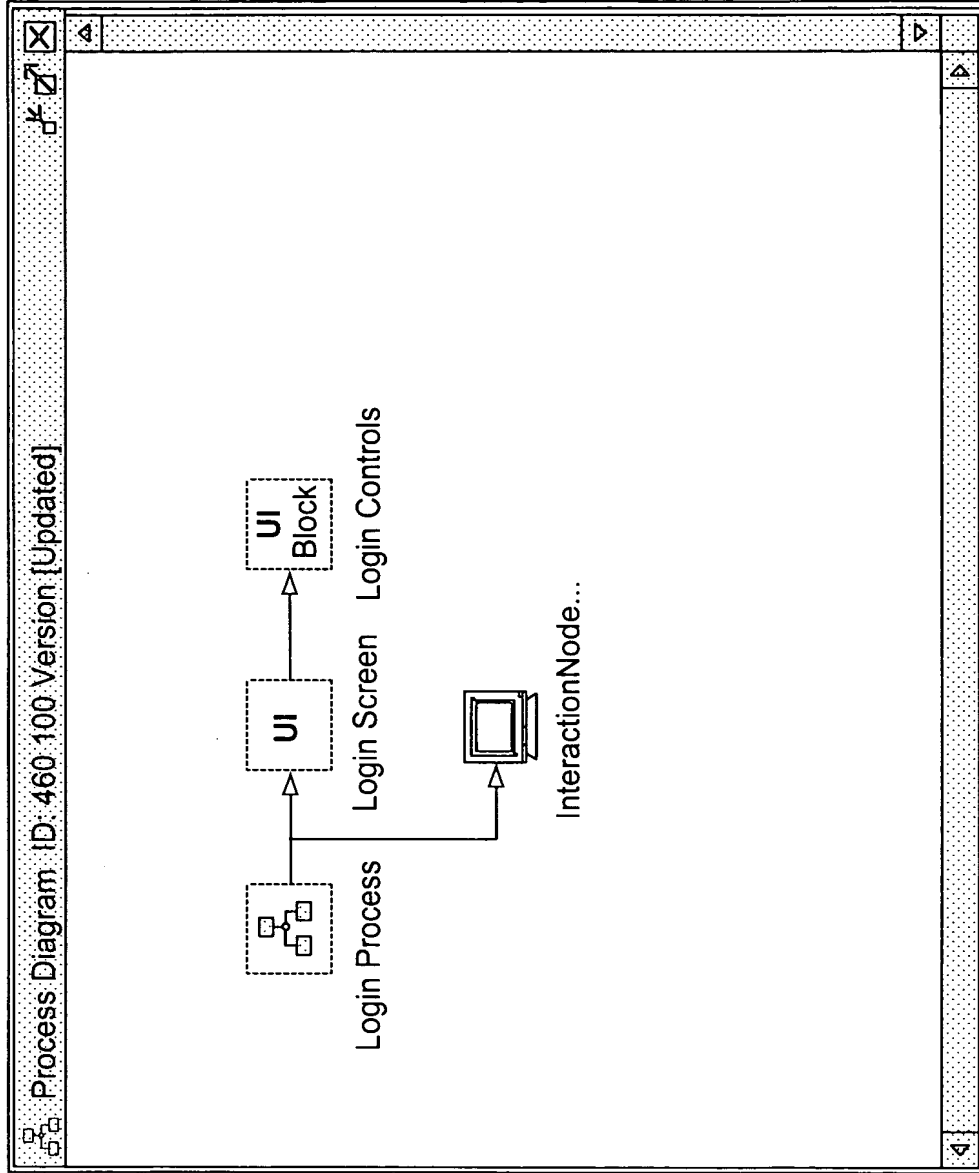
Available Components

General **Properties** **Events**

| Property | Value |
|------------------|-----------|
| Align | |
| Background color | |
| Caption | User Name |
| Caption position | |
| Caption suffix | |
| Enabled | |
| Font color | |
| Font face | |
| Font size | |
| Font style | |

Component Definition Box, Properties Tab

FIG. 27



Interaction Node


FIG. 28

Interaction Node Properties - 460117

General Properties

Title: Login Interaction


Name: Login Interaction


Description: 

UI Nodes

| UI Nodes | Add>> | Remove | Up | Down |
|--------------|-------|--------|----|------|
| Login Screen | | | | |

Interface or Process

Interface: 

Process: 

Parameters

| Interface | Process |
|-------------|----------|
| Column Name | Variable |

✓Ok X Cancel

Selecting a User Interface Node

FIG. 29

Interaction Node Properties - 460117

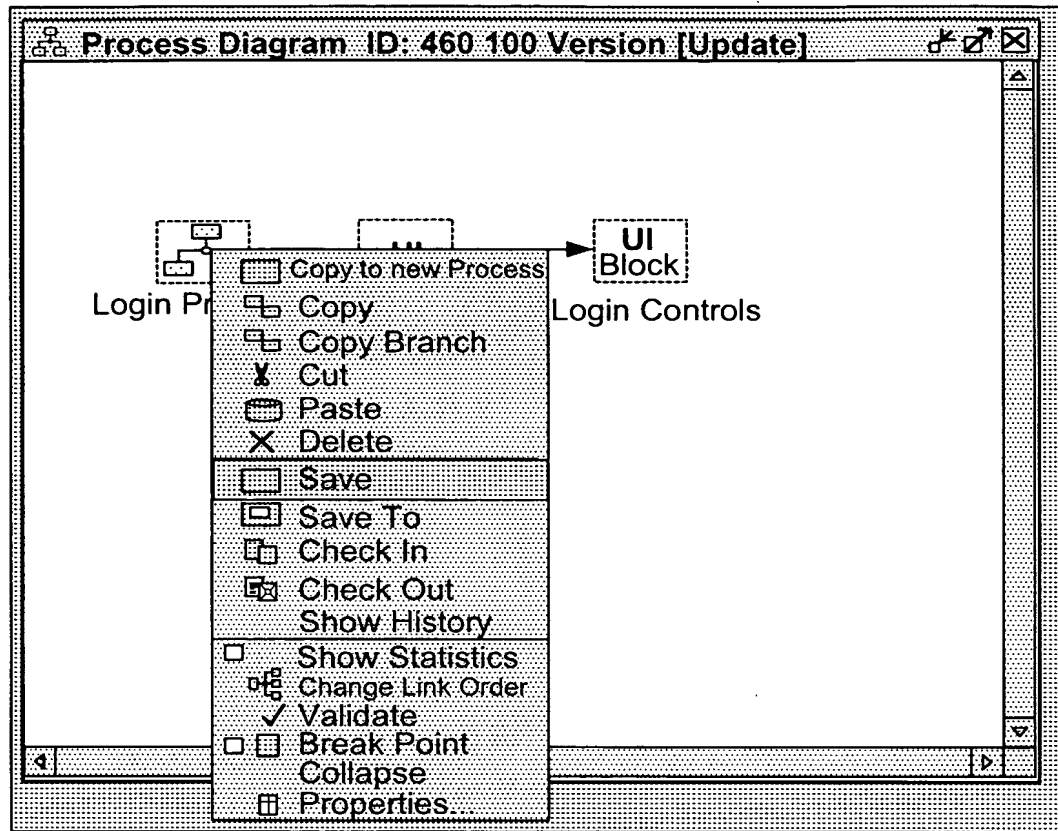
General Properties

| Property | Value |
|------------------------|------------|
| backbuttoncaption | |
| backbuttonimage | |
| backbuttonvisible | false |
| bgcolor | |
| caption | |
| captionbgcolor | |
| captioncolor | |
| debug | |
| description | |
| email | |
| enabled | |
| fontcolor | |
| fontface | |
| fontsize | |
| fontstyle | |
| fontweight | |
| keephistory | |
| nextbuttoncaption | |
| nextbuttonimage | |
| nextbuttonvisible | |
| requiredfieldindicator | |
| resetbuttonvisible | |
| template | MSTemplate |
| title | |

✓ Ok X Cancel

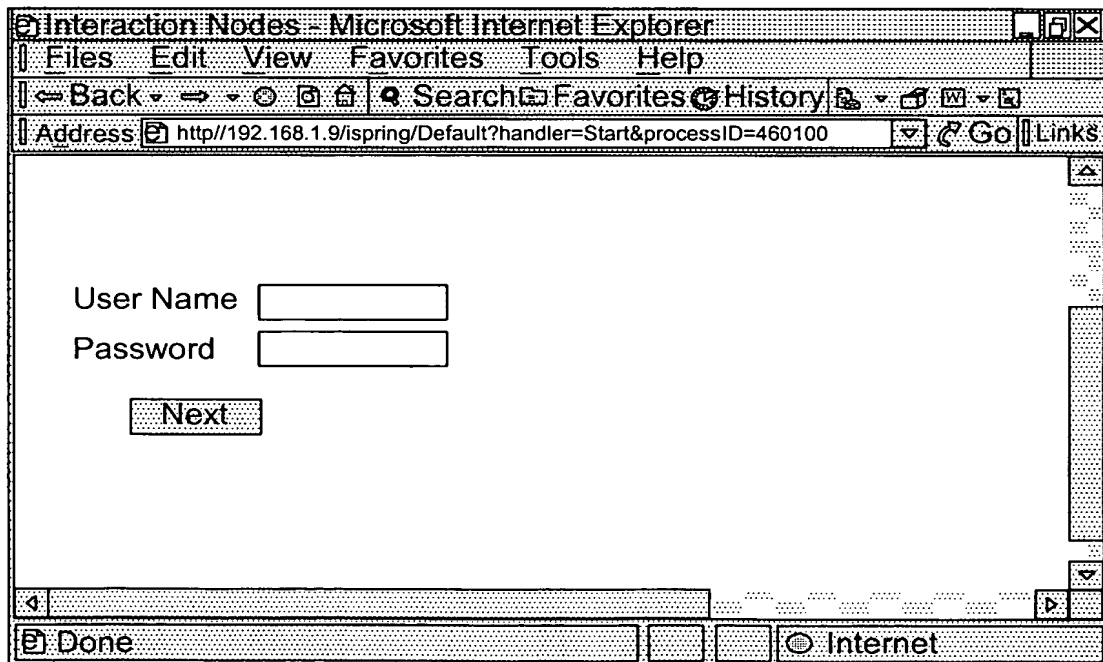
Interaction Node's Properties

FIG. 30



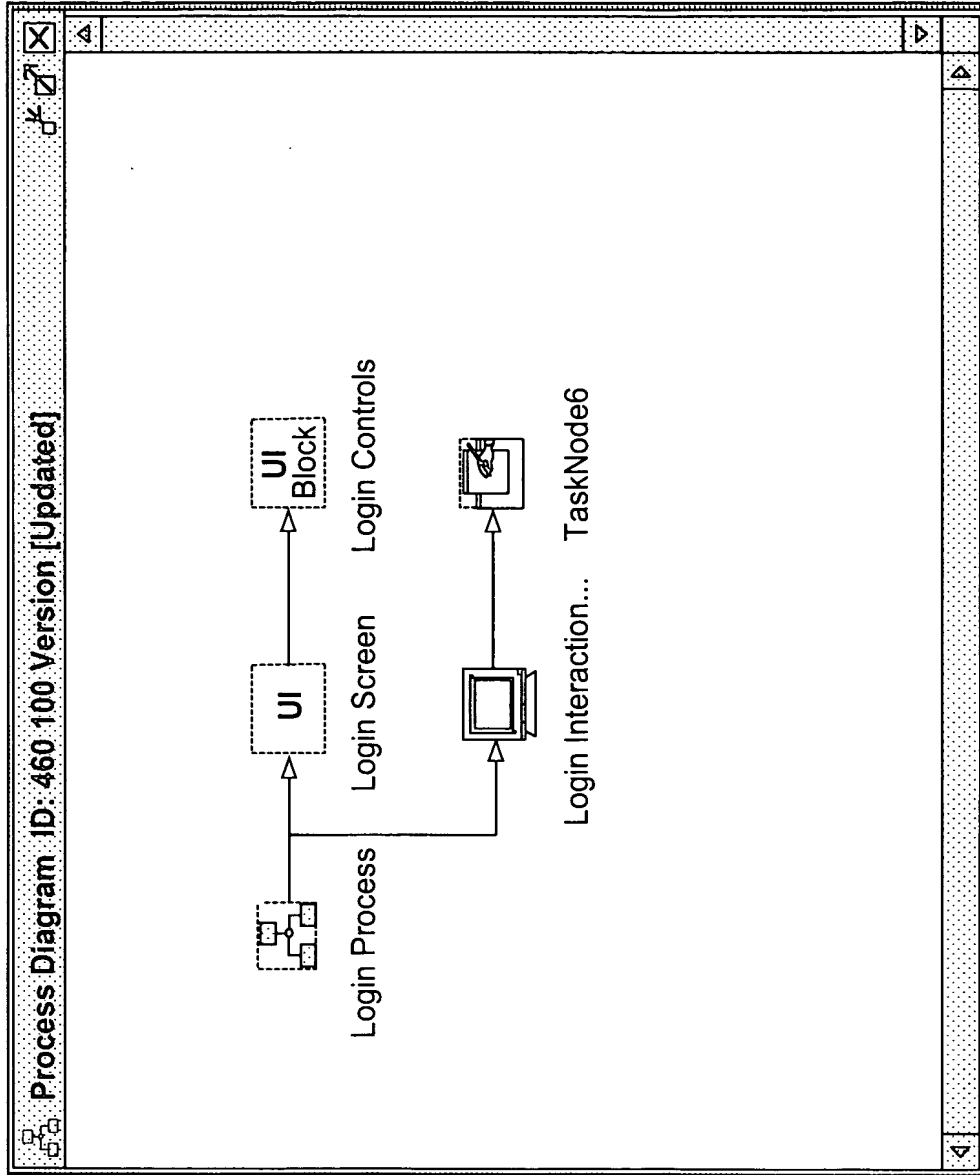
Process Node Menu, Save Process

FIG. 31



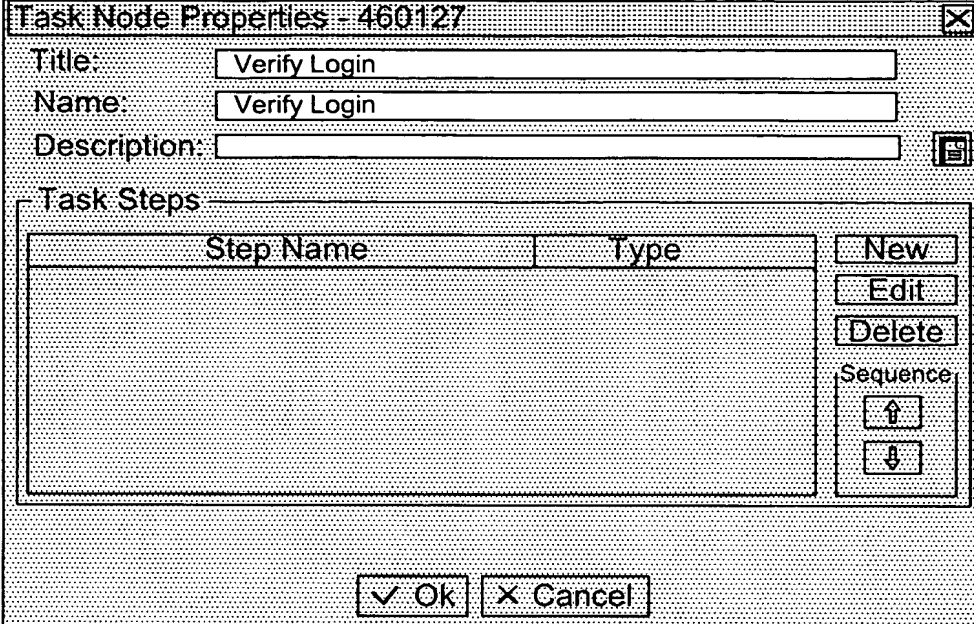
Login Process URL, Basic Fields

FIG. 32



Task Node

FIG. 33



Task Node Properties - 460127

Title:

Name:

Description:

Task Steps

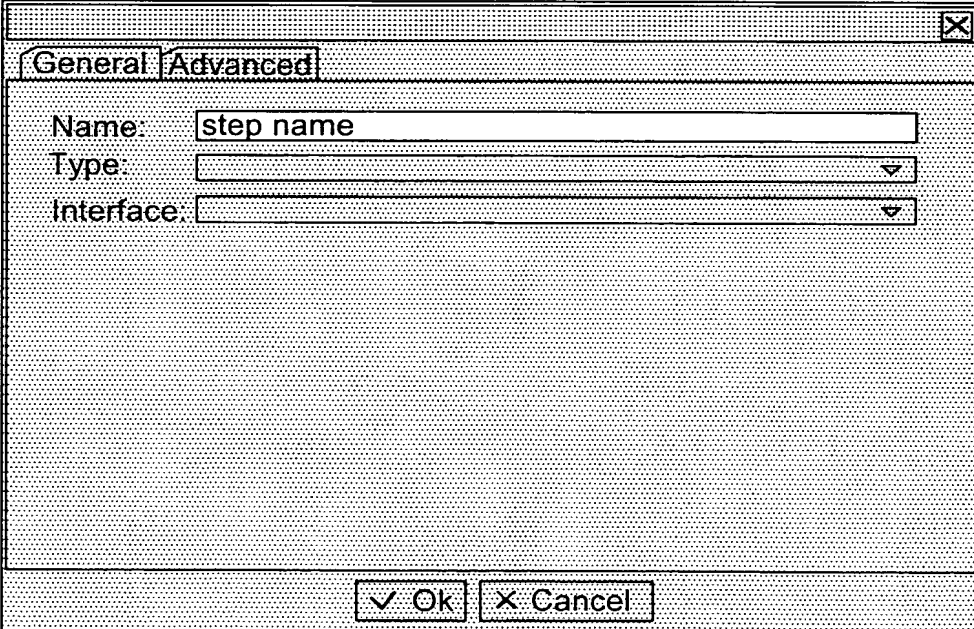
| Step Name | Type |
|-----------|------|
|-----------|------|

New
Edit
Delete
Sequence
↑
↓

✓ Ok X Cancel

Task Node Properties

FIG. 34



General Advanced

Name:

Type:

Interface:

✓ Ok X Cancel

Step Definition Box

FIG. 35

A screenshot of a software dialog box with two tabs: 'General' and 'Advanced'. The 'General' tab is active. It contains three input fields: 'Name' with the text 'verify against database', 'Type' with a dropdown menu showing 'Database', and 'Interface' with an empty dropdown menu. At the bottom are 'Ok' and 'Cancel' buttons.

Selecting a Step Function

FIG. 36

A screenshot of the same software dialog box, but with the 'Advanced' tab active. The 'Name' field remains 'verify against database'. The 'Type' dropdown is 'Database'. The 'Interface' dropdown now shows 'MS Verify Login'. Below these is a 'Return Value' field containing 'userinfo' and a 'New...' button. Underneath is a table with two columns: 'Column Name' and 'Variable'. The table contains two rows: '@Alias' and '@Pwd'. At the bottom of the table are 'Input' and 'Output' checkboxes. The 'Ok' and 'Cancel' buttons are at the very bottom.

| Column Name | Variable |
|-------------|----------|
| @Alias | |
| @Pwd | |

Database Variable Interface Options

FIG. 37

General Advanced

Name:

Type:

Interface:

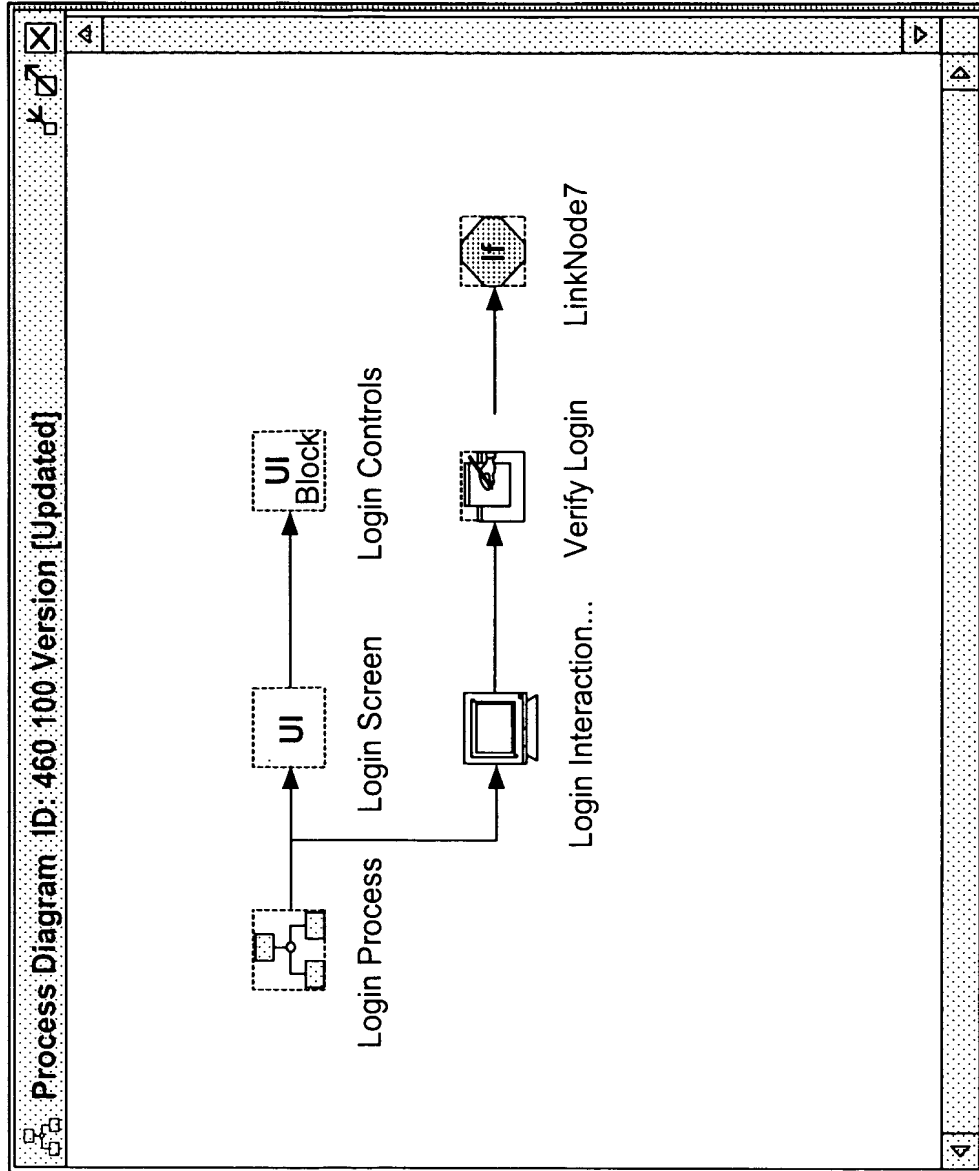
Return Value:

| Column Name | Variable |
|-------------|----------|
| @Alias | username |
| @Pwd | password |

☐ Input ☐ Output

Database Variables, Mapping Parameters

FIG. 38



Decision Node

FIG. 39

Link Node Properties

General | **Properties**

Title:

Name:

Description:

IF

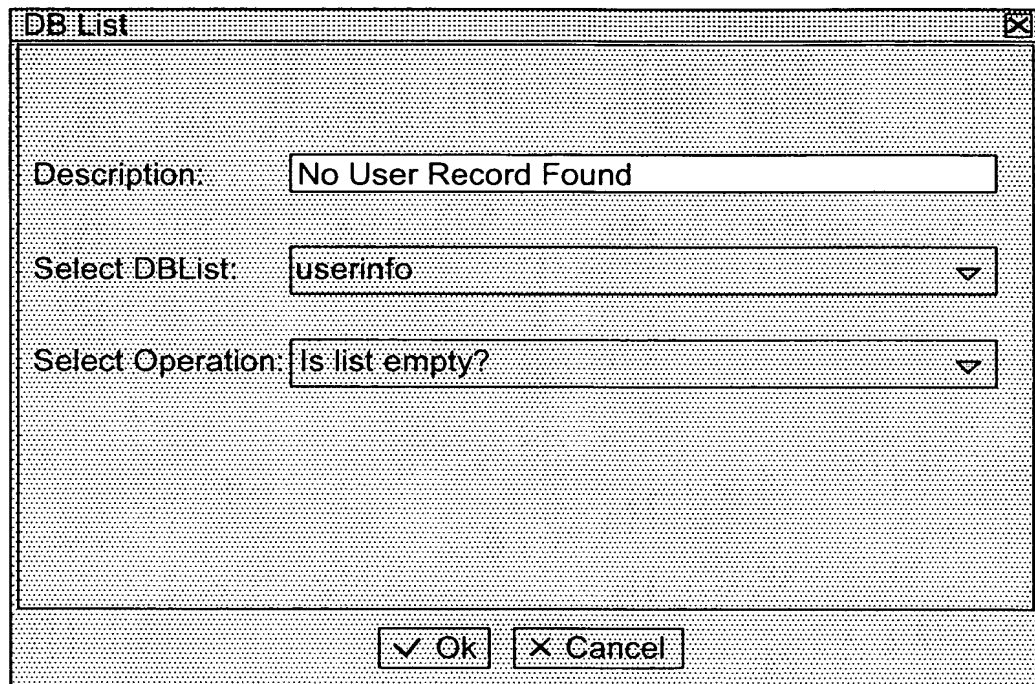
Decision Node's Properties Dialog Box

FIG. 40

| Wizard Name | Description |
|---------------------------|-------------------------------|
| Script | Write Customer java Code |
| Set Conditions | Set Conditional expression |
| DB List | Operations on DB List |
| Node Properties | Set Node Properties |
| Node Component Properties | Set Node Component Properties |
| XML | XML |
| Variable Functions | |
| DB Record | Operations on DB Record |
| Assign Expression | Assign Expression |
| Condition Revisited | Condition |

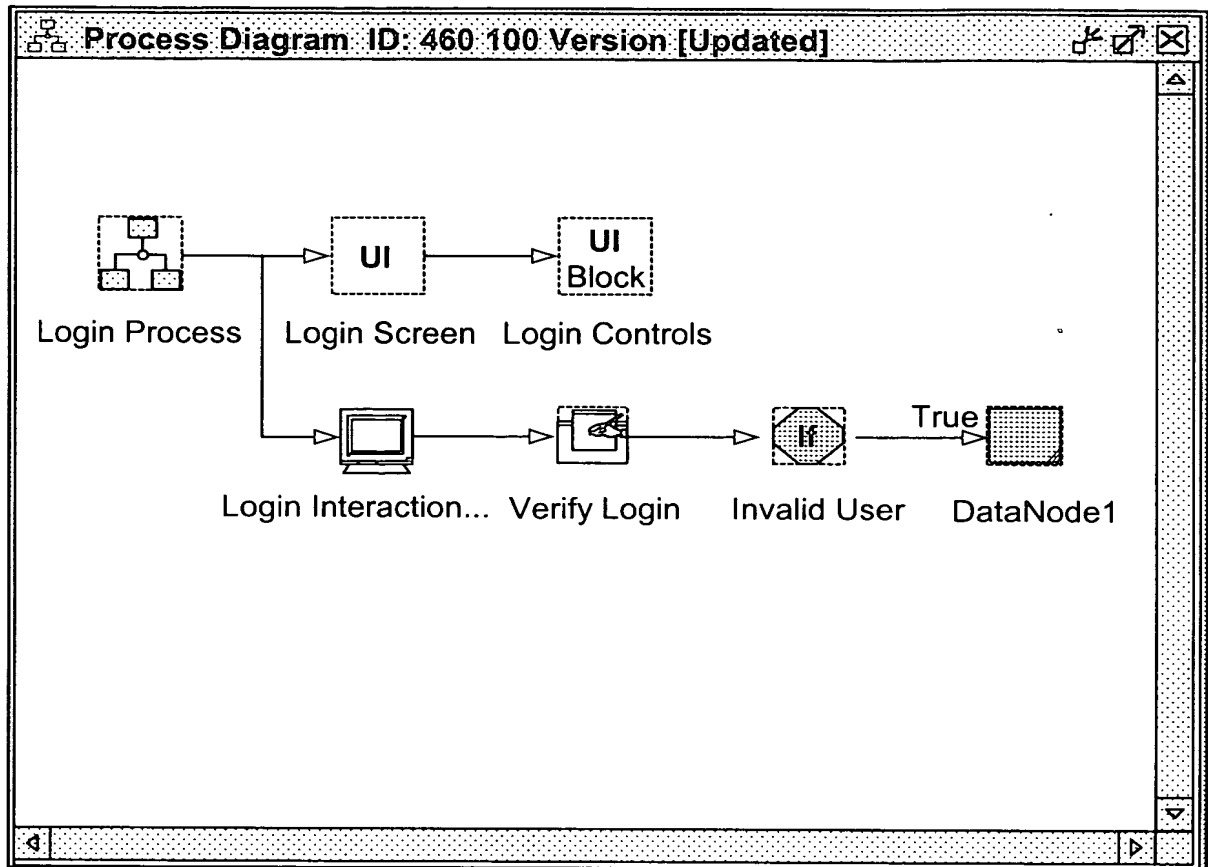
Decision Node Wizard Box

FIG. 41



DBList's Properties Dialog Box

FIG. 42



Data Node

FIG. 43

| Wizard Name: | Description: |
|---------------------------|-------------------------------|
| Script | Write Customer java Code |
| Assign Variable | Assign Variable |
| DB List | Operations on DB List |
| Node Properties | Set Node Properties |
| Node Component Properties | Set Node Component Properties |
| XML | XML |
| Variable Functions | |
| DB Record | Operations on DB Record |
| Assign Expression | Assign Expression |

✓ Ok ✕ Cancel

Wizard Box

FIG. 44

Node Component Properties

Description

| Node Name | Description |
|------------------|-------------|
| LoginScreen | |
| LoginControls | |
| LoginInteraction | |
| VerifyLogin | |
| InvalidUser | |
| ShowErrorMessage | |

String - UserName

String - Password

String - UserNotFound

| Property | Value |
|------------------|--------------------------------|
| Background color | <input type="text" value="A"/> |
| Caption | |
| Caption position | |
| Enabled | |
| Font color | |
| Font face | |
| Font size | <input type="text" value="A"/> |

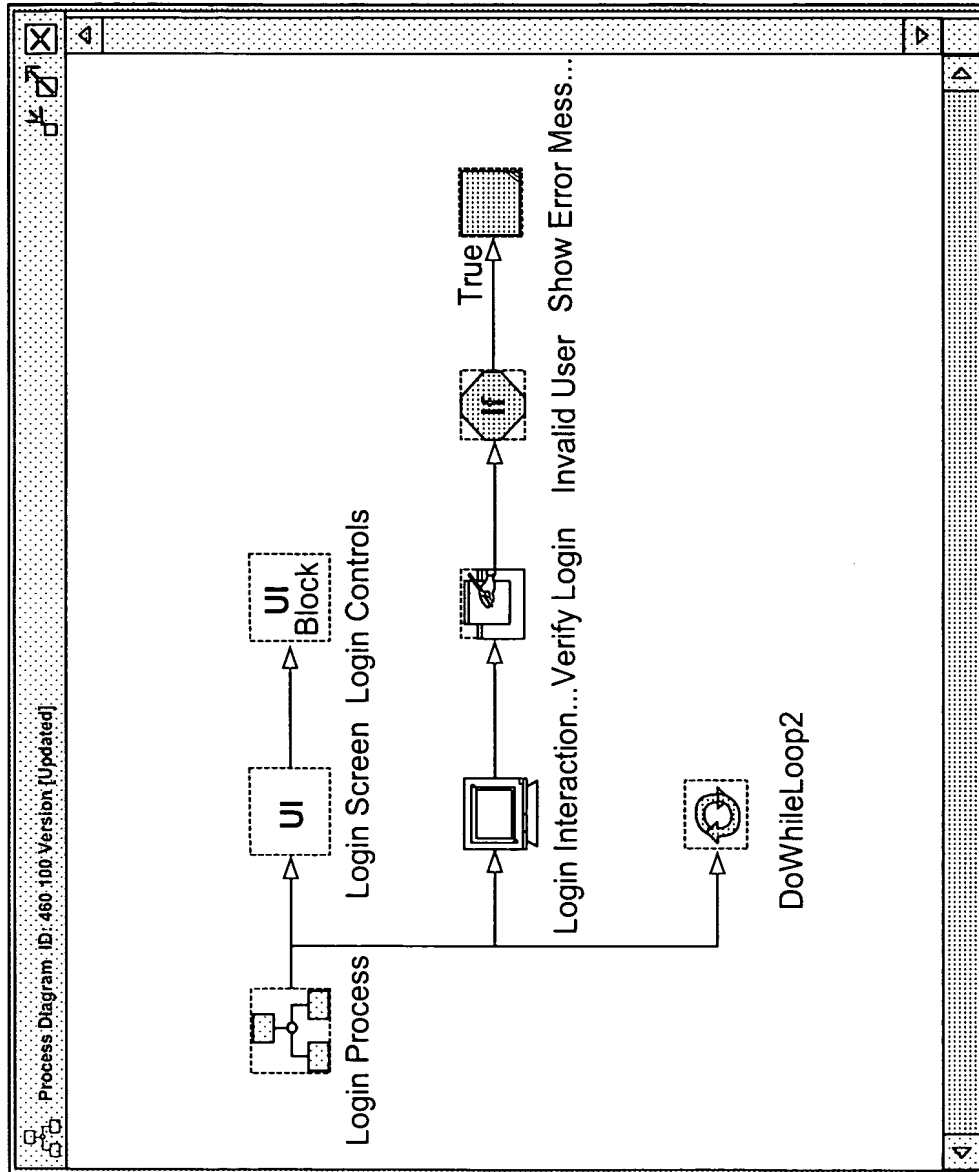
✓ Ok

✕ Cancel

Apply

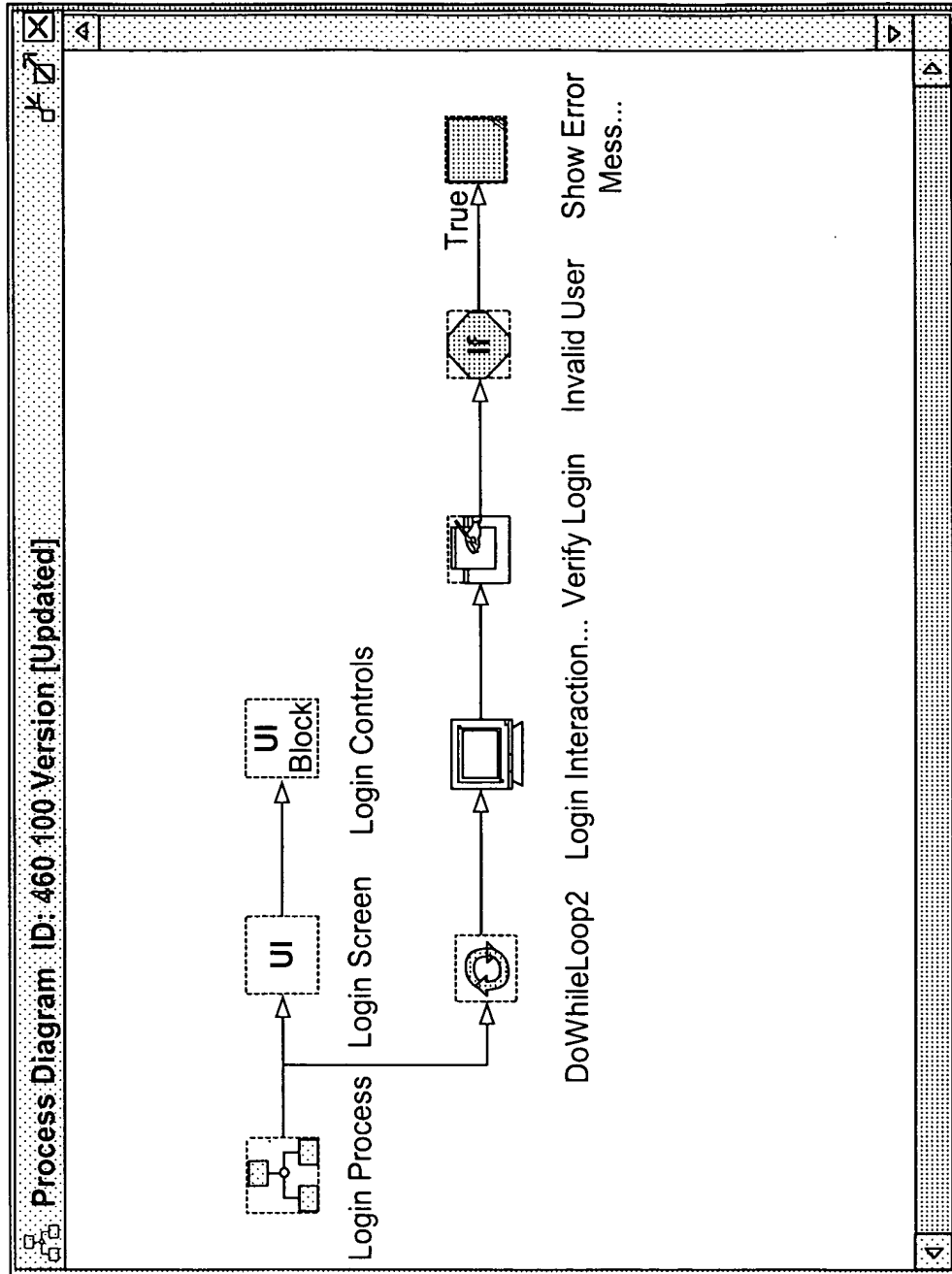
Node Components Properties Dialog Box

FIG. 45



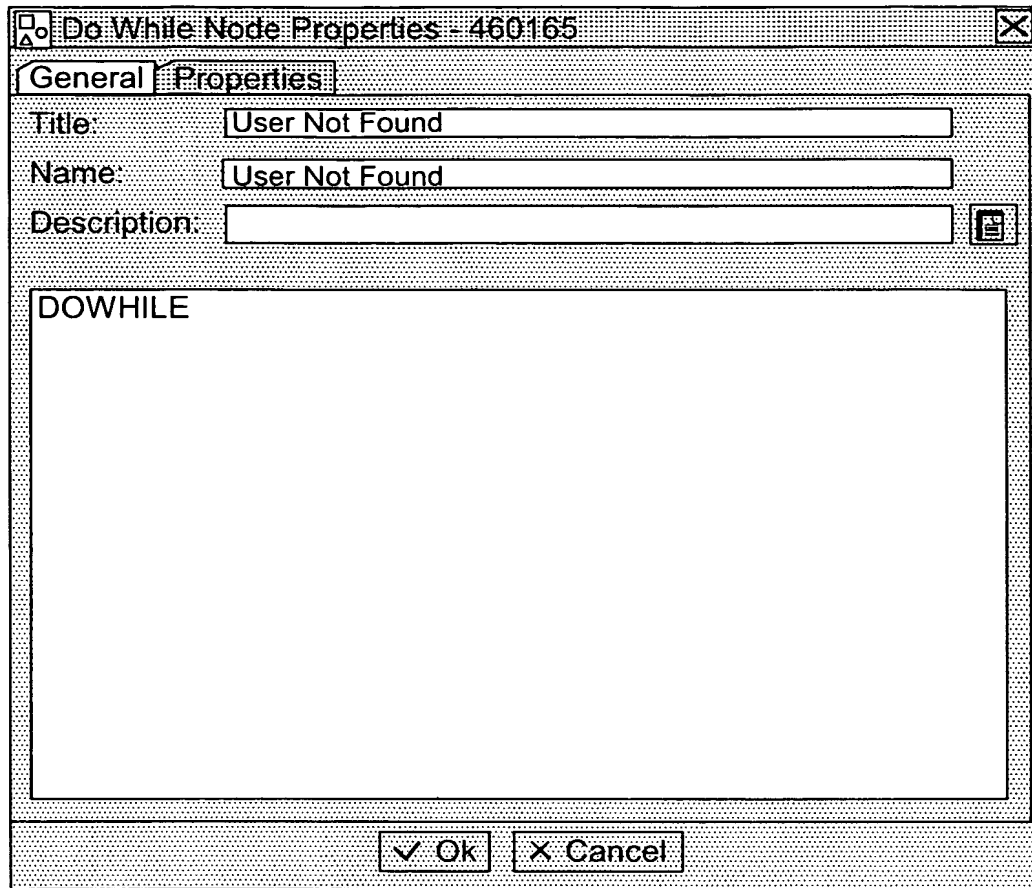
Do While Loop Node

FIG. 46



Loop Process

FIG. 47



Do While Node Properties - 460165

General Properties

Title: User Not Found

Name: User Not Found

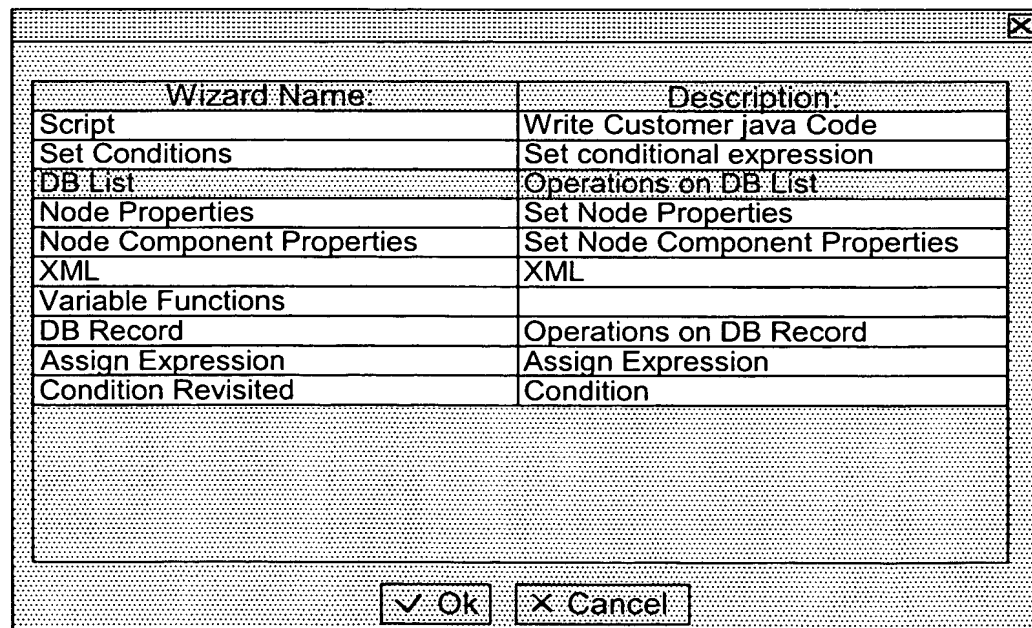
Description:

DOWHILE

✓ Ok X Cancel

Do While Loop Node's Properties Dialog Box

FIG. 48

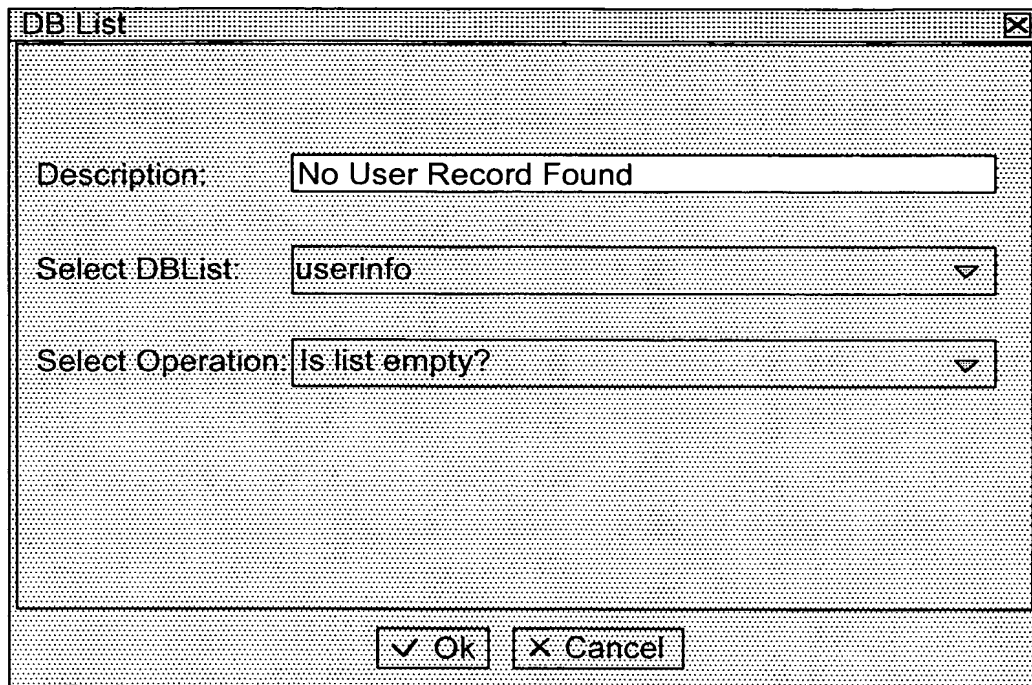


| Wizard Name: | Description: |
|---------------------------|-------------------------------|
| Script | Write Customer java Code |
| Set Conditions | Set conditional expression |
| DB List | Operations on DB List |
| Node Properties | Set Node Properties |
| Node Component Properties | Set Node Component Properties |
| XML | XML |
| Variable Functions | |
| DB Record | Operations on DB Record |
| Assign Expression | Assign Expression |
| Condition Revisited | Condition |

✓ Ok X Cancel

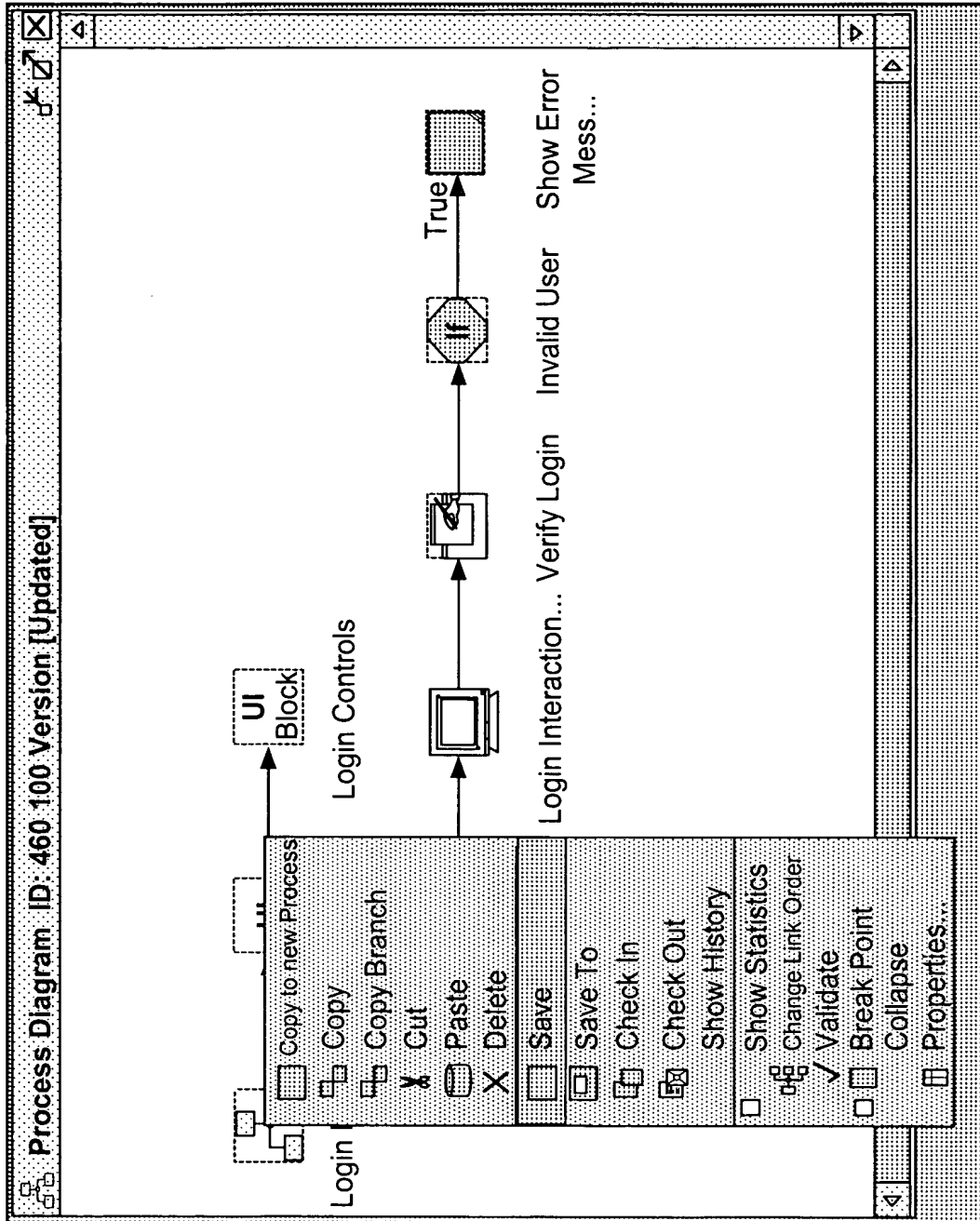
Do While Loop Node Wizard Box

FIG. 49



DBList's Properties Dialog Box

FIG. 50



Process Node Menu, Save Process

FIG. 51

The screenshot shows a Microsoft Internet Explorer window titled "Interaction Nodes - Microsoft Internet Explorer". The menu bar includes "File", "Edit", "View", "Favorites", "Tools", and "Help". The toolbar contains "Back", "Forward", "Stop", "Home", "Search", "Favorites", "History", "Go", and "Links". The address bar displays the URL "http://192.168.1.9/ispring/Default?handler=Start&processID=460100". The main content area contains a login form with the following elements:

- "User Name" label followed by a text input field.
- "Password" label followed by a text input field.
- A "Next" button below the password field.

The status bar at the bottom shows "Done" and "Internet".

Login Process URL, Basic Fields

FIG. 52

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